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**EPA Region 1 - New England**  
**October 28, 2009**

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Last section contains a discussion of "Putting Science and Technology to Work on Twentieth Century Issues" - p. 35.

**Schedule for October 28, 2009**  
**SAB Science Integration for Decision Making Fact Finding Interviews**  
**EPA Region 1 - EPA New England**

**9:30 a.m. Interview of Acting Regional Administrator and Deputy Regional Administrator**

EPA participants will include Ira Leighton, the acting Regional Administrator, and Stephen Perkins, the acting Deputy Regional Administrator.

**10:30 a.m. Interview of EPA New England Senior Managers**

EPA participants will include senior managers from EPA New England's Office of Ecosystem Protection, Office of Environmental Stewardship, Office of Site Remediation and Restoration, and Office of Environmental Measurement and Evaluation. These managers have responsibilities for those regional programs which are most involved in science-based decision making, including the region's air quality, drinking and surface water, coastal, energy/climate change, enforcement, quality assurance, laboratory, monitoring, and site cleanups programs.

**12:00 noon Lunch**

SAB committee members will have an hour and a half for lunch. It's a short walk from EPA's offices to the classic Beantown eatery Union Oyster House or Boston's North End, famous for its Italian restaurants.

**1:30 p.m. Interview of Regional Scientists**

EPA participants will include present and past members of EPA New England's Regional Science Council (RSC). The Council is composed of scientists, engineers and technical specialists representing a variety of scientific disciplines, who work to strengthen the application of science at EPA New England. The Council serves as a resource to regional scientists and engineers by developing training, encouraging collaboration, and sharing information on the latest scientific developments. The Council's activities include monthly seminars, training courses, a newsletter and a website, and a review of short-term research projects proposed by regional scientists.

**3:00 p.m. Adjourn**

## **Logistics for October 28, 2009 Visit by Members of the SAB Committee on Science Integration for Decision Making To EPA New England**

**Date and Time:** The interviews with EPA New England will be held on October 28, 2009, starting at 9:30 a.m. and concluding at 3:00 p.m. There will be a lunch break from 12:00 noon to 1:30 p.m. EPA staff can recommend several nearby restaurants.

**Meeting Location:** All of the day's meetings will be held in the Regional Administrator's Conference Room on the 11<sup>th</sup> floor of EPA's offices at One Congress Street, Boston, Massachusetts. Directions to the offices are provided below.

**Arrival and Security:** Federal security guards will greet visitors on the ground floor of One Congress Street. After passing through the metal detector, visitors should sign in at the security desk and receive a visitor badge. SAB members will be pre-registered with the guards. Please request that the guards contact Michael Kenyon at 8-1080 or Regina Bixby at 8-1003. Michael or Regina will escort you to the RA's Conference Room on the 11<sup>th</sup> floor. We suggest that you arrive in the lobby 10 or 15 minutes prior to the 9:30 a.m. meeting start time.

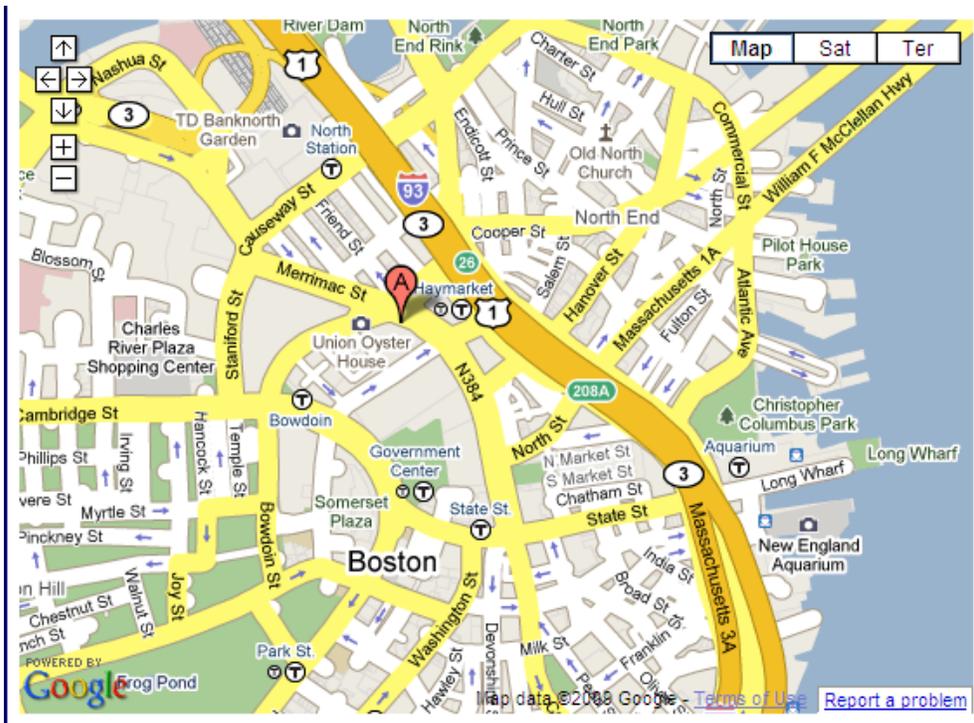
**Administrative Needs:** If you have need of a phone and quiet place to work, please contact Michael Kenyon at (617) 918-8317 (Chelmsford office) in advance of the meeting.

**Last-Minute Questions:** If you have any questions on the morning of the meeting, you can reach Michael Kenyon at (617) 918-1080 (Boston office) or (508) 284-0606 (cell).

**Directions:** EPA New England's main office is located at One Congress Street in downtown Boston, within a few minutes' walk of Government Center, Faneuil Hall and the North End. The pedestrian entrance to the One Congress Street offices is located at the corner of Congress and New Chardon Streets. EPA's offices are located on the top two floors (10<sup>th</sup> and 11<sup>th</sup>) of the "Government Center Parking Garage." The office entrance is brick/chrome/glass.

- ***Taxicab To/From Airport:*** If you are arriving directly from Boston's Logan Airport to EPA's offices, we recommend that you take a taxicab and ask to go to One Congress Street, at the corner of Congress and New Chardon Streets. Without traffic, the ride to One Congress Street takes only 5 minutes.
  
- ***Public Transportation To/From Airport:***
  - Get on any free MBTA shuttle bus labeled "subway"
  - Once inside the subway, head "inbound" on the blue line
  - Get off at the State Street stop
  - Change to the orange line (toward Oak Grove)
  - Get off at the Haymarket stop
  - You will see a very large gray, cement parking garage.

- Proceed to the intersection of Congress and New Chardon Streets, immediately adjacent to the parking garage, and look for the brick/chrome/glass entrance to EPA’s offices.
- **Driving to EPA’s Offices:** If you are driving to EPA’s offices, please consult the driving directions posted at EPA New England’s website: <http://www.epa.gov/region1/directions/>. You can park (for a fee) in the private commercial parking lot at One Congress Street, below EPA’s offices. Please be aware that there is no direct access from the garage to our offices. If you park in the garage, you will need to descend from the garage via the elevators to Floor 1, then exit the glassed-in area (currently an Enterprise car rental office shares the space) and walk a few yards toward the intersection to EPA’s lobby entrance. The office entrance is brick/chrome/glass.
- **Walking Directions:** If you are walking from your hotel, we suggest you ask the concierge or doorman for directions. For your convenience, we have provided maps of the vicinity of our office below. Please note that the map is less than perfect: the road labeled “N384” is Congress Street, and the Union Oyster House is nowhere near where it appears on the map!



**SAB Science Integration for Decision Making Fact-Finding Interview**  
**EPA Region 1 New England - Acting Regional Administrator and Deputy Regional Administrator**  
**1 Congress St, Boston, MA**  
**Regional Administrator's Conference Room, 11th floor of EPA's offices**  
**Call-in Number for SAB subgroup: 866-299-3188, access code 343-9981 and press the # sign. )**  
**October 28, 2009, 9:30-10:30 a.m.**

**Draft Agenda**

**Purpose of Interview:** to help SAB Committee members learn about Region 1 New England 's current and recent experience with science integration supporting EPA decision making so that the SAB can develop advice to support and/or strengthen Agency science integration efforts.

1. Introductions facilitated by the SAB Staff Office
2. Discussion facilitated by SAB Members
3. Identification of any follow-up actions

Planned participants

EPA Region 1 New England

Mr. Ira Leighton, Acting Regional Administrator,  
Mr. Stephen Perkins, Acting Deputy Regional Administrator

SAB Committee on Science Integration Committee Members

Dr. Deborah Cory-Slechta, University of Rochester  
Dr. James Johnson, Howard University

SAB Staff Office

Dr. Vanessa Vu, Director  
Dr. Angela Nugent, Designated Federal Officer

## **DRAFT Biographies of EPA New England Acting Regional Administrator and Deputy Regional Administrator**

### **Ira W. Leighton, Acting Regional Administrator**

Mr. Leighton is the Deputy Regional Administrator of EPA New England, currently acting as the Regional Administrator. In this capacity, he oversees all of EPA's regional operations, including all water, air and hazardous waste programs. He is a leader at EPA on innovative strategies, and he is a personal champion of Environmental Management Systems (EMSs) and various ways industry can achieve compliance with environmental requirements.



Prior to being named Deputy Regional Administrator, Mr. Leighton was the Director of the Office of Environmental Stewardship. The Office of Environmental Stewardship is a one of a kind organization among EPA regions that is responsible for enforcement of all environmental laws and regulations and for providing compliance assistance and pollution prevention assistance to the regulated community. The Office is also prominent in national and regional efforts to experiment with innovative approaches that integrate compliance assistance, compliance incentives and enforcement strategies to solve New England's environmental and compliance problems. Prior to directing the Office of Environmental Stewardship, Ira was a key management team member in the Office of Site Remediation and Restoration where the Superfund, Brownfields and Resource Conservation and Recovery Act cleanup programs reside. The office also provides emergency responders throughout the region. He established a management review system that helps ensure consistency of cleanup decisions in the region and fosters redevelopment of contaminated sites.

Mr. Leighton has been in the environmental field for over 30 years and he has held a variety of other technical and management positions with EPA, and prior to that with the Commonwealth of Massachusetts. These positions provided hands on experience with a number of different regulatory and technical assistance programs. Mr. Leighton has a B.S. from UMass, Amherst and an M.S. from Northeastern University in Environmental Engineering.

### **Stephen S. Perkins, Acting Deputy Regional Administrator**

Stephen Perkins is the acting Deputy Regional Administrator of EPA's New England Office, pending appointment of a new Regional Administrator. Since 2007, Stephen has been the Director of EPA New England's Office of Ecosystem Protection, which is responsible for the federal air, water, and tribal programs in the six New England states. From 2002 to 2006, Stephen served as Director of the Office of Environmental Stewardship which implements EPA's enforcement and compliance assistance programs. Prior to that, he served as the Director of the Office of Administration and Resource Management from 1993 to 2002. Stephen joined EPA in 1981 as an air quality dispersion modeler, and held a series of technical and management positions in the Air program over a ten year period. Before joining EPA, he worked in the private sector as an air quality consultant.

**SAB Science Integration for Decision Making Fact-Finding Interview**  
**EPA Region 1 New England - Senior Management Team**  
**1 Congress St, Boston, MA**  
**Regional Administrator's Conference Room**  
**Call-in Number for SAB subgroup: 866-299-3188, access code 343-9981 and press the #**  
**sign. )**  
**October 28, 2009, 10:30-12:00 a.m.**

**Draft Agenda**

**Purpose of Interview:** to help SAB Committee members learn about Region 1 New England's current and recent experience with science integration supporting EPA decision making so that the SAB can develop advice to support and/or strengthen Agency science integration efforts.

1. Introductions facilitated by the SAB Staff Office
2. Discussion facilitated by SAB Members
3. Identification of any follow-up actions

Planned participants

EPA Region 1 New England

Mr. Michael Kenyon, Director, Office of Environmental Measurement and Evaluation (OEME)

Mr. Gerry Sotolongo, Chief, Quality Assurance, OEME

Mr. David Webster, Chief, Industrial Permits Branch, Office of Ecosystem Protection (OEP)

Ms. Cynthia Greene, Chief, Energy and Transportation Unit, OEP

Ms. Ida McDonnell, Chief, Air Permits, Toxics and Indoor Programs Unit, OEP

Mr. Mel Cote, Chief, Ocean and Coastal Protection Unit, OEP

Mr. Steven Rapp, Chief, Acting Technical Enforcement Office, Office of Environmental Stewardship (OES)

Mr. Michael Jasinski, Chief, NH/RI Superfund Section, Office of Site Remediation and Restoration (OSRR)

Ms. Meghan Cassidy, Chief, Technical and Enforcement Section, OSRR

Mr. Robert Hillger, Regional Science Adviser

SAB Committee on Science Integration Committee Members

Dr. Deborah Cory-Slechta, University of Rochester

Dr. James Johnson, Howard University

SAB Staff Office

Dr. Vanessa Vu, Director

Dr. Angela Nugent, Designated Federal Officer

## **Biographies of EPA New England Senior Managers**

**Meghan Cassidy:** Meghan Cassidy manages the Technical and Enforcement Support unit within the Office of Site Restoration and Revitalization (OSRR). OSRR focuses on restoring currently contaminated properties through management of all our responsibilities under CERCLA, the RCRA corrective action program and the Underground Storage Tank program. Ms. Cassidy's office provides risk assessment and other technical support needed within OSRR.

**Mel Cote:** Mel Cote is the manager of the Ocean and Coastal Protection Unit in EPA New England's Office of Ecosystem Protection. His unit administers federal programs to protect marine and estuarine waters in New England. The unit's responsibilities include regulating the disposal of dredged material, vessel sewage, and other wastes; managing the six National Estuary Programs in New England; coordinating state and local beach programs; conducting environmental impact reviews of federal activities in coastal waters; and assisting with the issuance of National Pollutant Discharge Elimination System (NPDES) permits for discharges that may affect marine water quality and/or fishery resources.

Mr. Cote is also involved in coastal initiatives related to implementation of the U.S. Ocean Action Plan, such as the Northeast Regional Ocean Council and Massachusetts Ocean Management Plan, various monitoring programs such as the National Coastal Assessment and Gulf of Maine Ocean Observing System, and habitat restoration efforts through Coastal America with the U.S. Army Corps of Engineers and other federal, state, and local agencies and organizations.

**Cynthia Greene:** Cynthia Greene is the manager of EPA New England's Energy and Transportation Unit. In this role, she manages the region's programs dealing with energy efficiency, renewable energy, diesel, climate change, Community Energy Challenge, and Best Workplaces for Commuters. Prior to this position, Ms. Greene has worked on EPA New England's recycling, compliance assistance, air, and waste programs.

**Robert Hillger:** Robert serves as the ORD Regional Science Liaison and the Regional Science Advisor at EPA New England. Robert earned B.S. degrees in Zoology, Psychology and Geology and an M.S. in Civil Engineering and Water Resources from Iowa State University.

Robert began his career at EPA in 1985 as a Project and Contract Officer with ORD's National Risk Management Research Laboratory, where he was the technical advisor on remediation technologies for RCRA and Superfund sites and became the national expert on oil spills and Underground Storage Tank technology. In 1992, Robert left ORD to become the Native American Tribes Coordinator in Region 9 (San Francisco, CA), providing technical advice for native Americans in the southwestern US.

In 1993 Robert began his long association with the ORD Regional Scientist Program. After serving two years as the ORD Regional Scientist in Region 7 (Kansas City, KS), where he developed a Regional website, conducted technical reviews for Superfund and RCRA and

coordinated regional participation in ORD planning process, Robert accepted the ORD Regional Scientist position in EPA New England. From 1995 until 1997 Robert helped develop and implement the local Regional Science Council as well as the National Regional Science Council.

Immediately prior to accepting the Regional Science Liaison position in EPA New England in 2000, Robert was the Senior Science Advisor to the EPA New England Regional Administrator. In this position he provided advice to senior management and staff on science issues, handled white house/congressional correspondence, lead the Regional peer review oversight; functioned as the Regional EMPACT Coordinator; Vice-Chair on the Regional Science Council and as the Regional representative on numerous technical steering committees. Robert continues to provide many of these services to the Region as part of his current job duties.

**Michael Jasinski:** Mr. Jasinski is the manager of the New Hampshire/Rhode Island Superfund Section in the Office of Site Remediation and Restoration (OSRR). In this position, he manages eight remedial project managers involved in Superfund site cleanups in New Hampshire and Rhode Island, and at the Raymark Superfund site in Connecticut. Mr. Jasinski has worked in EPA's Superfund program since 1987.

**Michael Kenyon:** Michael Kenyon is the Director of the Office of Environmental Measurements and Evaluation (OEME) at EPA New England's regional laboratory in Chelmsford, Massachusetts. His office has responsibility for EPA New England's air and water monitoring programs, its biology and chemistry laboratories, its quality assurance programs, and its field investigations team.

Prior to this position, Mr. Kenyon was the Chief of the Air Programs Branch at EPA New England. In this position, he managed the Region's programs addressing ozone and particulate matter, air toxics, regional haze, New Source Review and Title V permitting, energy and indoor air quality. In the late 1990s and early 2000s, Mr. Kenyon worked closely with the New England states on action plans to address the challenges of mercury and climate change.

Earlier in his career, Mr. Kenyon co-taught a seminar on the Clean Air and Water Acts at Boston College Law School and taught legal writing at Boston University Law School. He earned his J.D. in 1985 from the University of Michigan Law School and his A.B. in 1982 from Dartmouth College.

**Ida McDonnell:** Ida McDonnell is the chief of the Air Permits, Toxics and Indoor Programs section in the Office of Ecosystem Protection. Her office has responsibility for implementing the region's programs involving the Clean Air Act's New Source Review and Title V operating permit programs, air toxics programs, air models, radon and asthma. Ms. McDonnell has many years of experience in various air and tribal programs.

**Steven Rapp:** Steven Rapp has worked for the U.S. Environmental Protection Agency ("EPA") since 1989. Steven holds a bachelor of science in mechanical engineering from Tufts University. During his career at EPA, he has worked in the Washington, D.C., and Boston, MA, offices on various, air, water, and waste control issues. He is currently acting as the Manager of the Technical Enforcement Office within the Office of Environmental Stewardship of Region I. The

Technical Enforcement Office is responsible for carrying out the technical aspects of regulatory inspections and enforcement under several environmental statutes, including: the Clean Water Act; the Safe Drinking Water Act; the Clean Air Act; the Toxic Substances Control Act; the Resource Conservation and Recovery Act; the Fungicide, Insecticide, and Rodenticide Act; and the Emergency Planning and Community Right-to-Know Act.

**Gerry Sotolongo:** Gerry Sotolongo currently heads the Quality Assurance Branch at EPA New England's Regional Laboratory in Chelmsford, Massachusetts. In the position, he manages a multi-disciplinary group of chemists, scientists, environmental protection specialists, and a chemical engineer, who are responsible for assuring the quality of data used to make decisions in support of the Agency mission, and implementing and assessing the regional Quality system. Among other services, the group provides technical assistance on project planning, expert chemistry and engineering advice, method and document reviews, and laboratory and field assessments. Mr. Sotolongo has also worked in the region's enforcement, water and waste programs.

**David Webster:** David Webster currently heads the Industrial Permits Branch in EPA New England's Office of Ecosystem Protection. In this position, he manages a large staff working on the issuance of National Pollutant Discharge Elimination System (NPDES) permits. Under the NPDES program, all municipal, industrial and commercial facilities that discharge wastewater directly from a point source (a discrete conveyance such as a pipe, ditch or channel) into a receiving waterbody (lake, river, ocean) are issued an NPDES permit.

Prior to his position in the Industrial Permits Branch, Mr. Webster held positions in the region's environmental stewardship and waste programs.

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1. Introductions facilitated by the SAB Staff Office
2. Discussion facilitated by SAB Members
3. Identification of any follow-up actions

Planned participants

EPA Region 1 New England

Mr. Marcel Belaval, Hydrogeologist, Drinking Water Branch, Office of Ecosystem Protection (OEP)

Dr. Alison Simcox, Environmental Scientist, Air Programs Branch, OEP

Ms. Ellen Weitzler, Environmental Engineer, Water Standards Branch, OEP

Dr. Rhona Julien, Environmental Scientist, Air Programs Branch, OEP

Dr. Raymond Putnam, Ph.D., Toxics and Pesticides Unit, Office of Environmental Stewardship (OES)

Mr. William Lovely, Environmental Engineer, Office of Site Remediation and Restoration (OSRR)

Ms. Sarah Levinson, Assistant Regional Manager, Office of Regional Administrator

Mr. Robert Hillger, Regional Science Advisor

SAB Committee on Science Integration Committee Members

Dr. Deborah Cory-Slechta, University of Rochester

Dr. James Johnson, Howard University

SAB Staff Office

Dr. Vanessa Vu, Director

Dr. Angela Nugent, Designated Federal Officer

## **Biographies of EPA New England Scientists**

**Marcel Belaval:** Marcel Belaval is a Hydrologist with the Drinking Water Program at EPA Region 1 where he provides technical guidance and assistance on ground water investigations. Marcel is also working on the implementation of new drinking water regulations including the Radionuclides Rule and the Ground Water Rule. He holds an M.S. in Geophysics from Boston College and a B.S. in Geology from the University of Connecticut.

Mr. Belaval also serves as the current chair of EPA New England's Regional Science Council.

**Rhona Julien:** Rhona Julien is an environmental health scientist and the asthma coordinator for the indoor air program at Region I Environmental Protection Agency (EPA). As a member of the asthma team in Region I EPA, her duties include fostering a working relationship with other federal and state partners, as well as the academic community and community partners.

She has worked for the EPA for 22 years in several different capacities, as a regulator, outreach coordinator, and researcher as well as in grants management and enforcement. Most recently as a researcher, she and fellow scientists conducted exposure assessment studies looking at the impacts of environmental chemicals on ambient and indoor air in auto body shops and agricultural settings.

Dr. Julien received a BS in chemical engineering from Columbia University, a MA in environmental policy from Tufts University, and a ScD in environmental health from Harvard School of Public Health. Her doctoral research provided the impetus for Boston's Healthy Pest-Free Housing Initiative, a project designed to reduce environmental health risks and asthma among residents of Boston public housing.

**Sarah Levinson:** Sarah Levinson currently serves as an Assistant Regional Planner. For approximately 22 years, she worked as an EPA CERCLA human health risk assessor, providing human health risk assessment support on approximately 30 CERCLA projects, including large federal facilities (e.g., Massachusetts Military Reservation involving explosive and propellant related contamination), PCB sites, and sites contaminated with solvents, pesticides, metals, and asbestos. She has participated in numerous regional management decisional meetings in which health risks were used in support of endangerment findings. She has also helped shape several national and regional human health risk assessment guidances.

**William Lovely:** Bill Lovely currently serves as the Lead Region Coordinator for the Resource Conservation and Recovery Act (RCRA) program. In this capacity, he facilitates communication and coordination among EPA's national RCRA office and the RCRA programs in the 10 regions. Prior to this position, Mr. Lovely served as the Lead Region Coordinator for EPA's Office of Research and Development and the Regional Science and Technology Programs.

Mr. Lovely has an engineering degree from the University of Massachusetts at Lowell and worked for many years as a remedial program manager in EPA New England's Superfund program.

**Raymond Putnam:** Raymond Putnam works in EPA New England's pesticides program. Dr. Putnam has experience in environmental toxicology, pesticides, and exposure assessment. He has published several papers on pesticide exposure.

**Alison Simcox:** Alison Simcox is the EPA Region 1 expert on fine-particle pollution (also known as particulate matter or PM). In this role, she is the regional contact for all aspects of the EPA PM program, including setting PM national ambient air-quality standards (NAAQS) and designating areas in New England as attaining or not attaining the PM NAAQS. Because fine particles are emitted from all combustion sources, she has also become the regional contact for emissions-trading programs (i.e., the Clean Air Interstate Rule and its replacement), and for alternative-fuels programs for mobile and stationary sources. Her work on alternative fuels has focused on air-quality impacts associated with operation of woody biomass boilers.

In addition, Alison had a primary role in designing and developing the EPA-USGS New England SPARROW nutrient model. Subsequently, she developed an idea for a similarly formatted model for mercury, and led the effort to build a project team of preeminent mercury researchers and to secure a \$250,000 grant from EPA's Advanced Monitoring Initiative (AMI) to develop the model (now known as "MERGANSER"). MERGANSER, a GIS-based regression model, will be used by EPA and its partners to identify aquatic ecosystems at risk for mercury contamination in fish and fish-eating birds biota, and the likely sources of this mercury. It will also be able to predict changes in mercury levels in biota resulting from implementing various policies, and to identify optimal locations for long-term monitoring.

Prior to working in EPA's air program, Alison was the Regional Coordinator for the Total Maximum Daily Load (TMDL) program for about 4 years. She also has experience working as a hydrogeologist in EPA's RCRA Corrective Action program and at the US Geological Survey. Alison holds an honors BA degree in English and Journalism and a BS degree in Geology from the University of Massachusetts, Amherst; a MS degree in Hydrology from the New Mexico Institute of Mining and Technology (New Mexico Tech); and a PhD in Environmental Engineering from Tufts University. She is also a member of Tau Beta Pi, a national Engineering honor society.

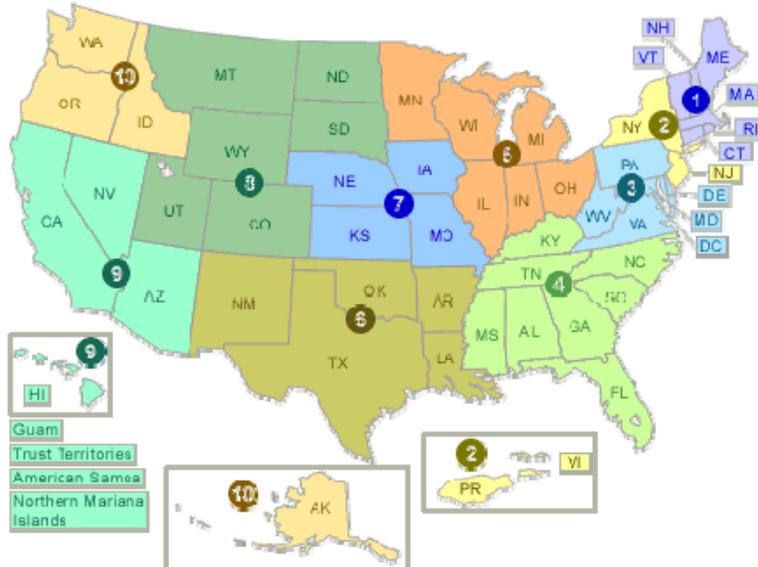
**Ellen Weitzler:** Ellen Weitzler currently serves as the Region 1 Water Quality Standards Coordinator. She joined EPA in 2006 as a NPDES permit writer following a 13 year career in private sector environmental engineering consulting. She holds a BS, MS, and professional license in civil engineering.

# About EPA Region 1 – New England

## GEOGRAPHICAL COVERAGE OF EPA NEW ENGLAND

EPA Region 1's geographical coverage includes the six New England states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont, hence the region's alternative moniker, EPA New England.

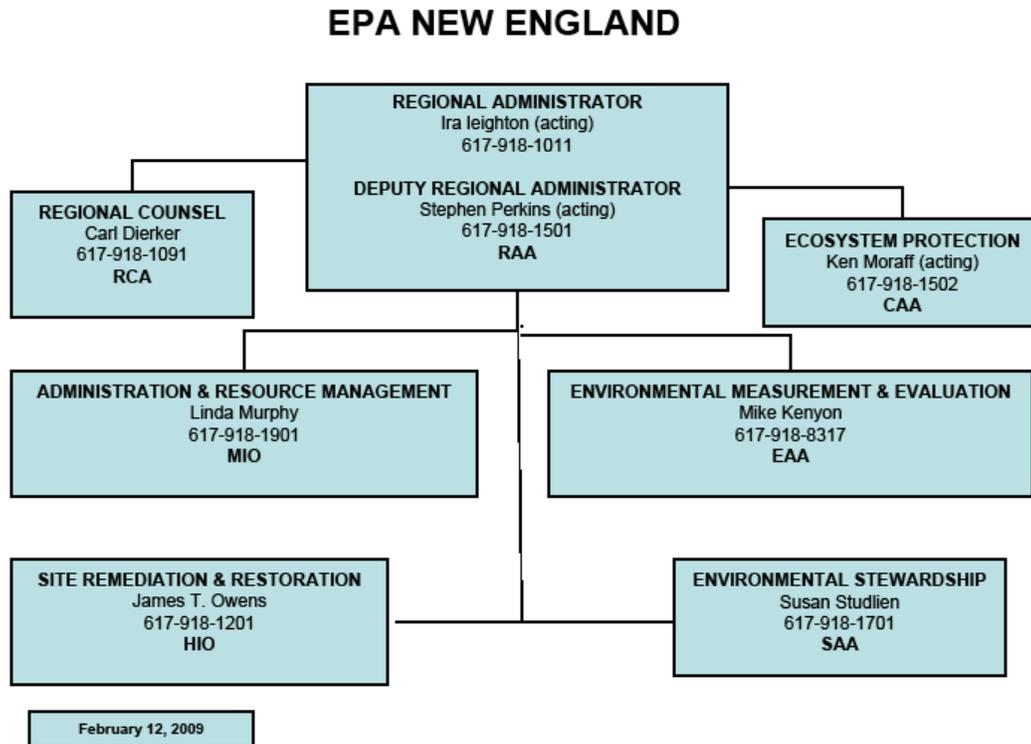
EPA New England works closely with the environmental and public health agencies of the states on implementation of their air, water, waste, and enforcement programs. For many years, the New England states have joined with five eastern Canadian provinces in developing regional action plans on such issues as climate change, energy, mercury, acid rain, and fine particulate. EPA New England has been an active participant in these collaborations and is proud of the leadership shown by the states.



Region 1 also works 10 federally recognized Tribes with an approximate land base of 260,000 acres in New England. The Tribes include the Mashantucket Pequot Tribal Nation, the Mohegan Tribe, the Aroostook Band of Micmacs, the Houlton Band of Maliseet Indians, the Passamaquoddy Tribe of Indians Indian Township Reservation, the Passamaquoddy Tribe of Indians Pleasant Point Reservation, the Penobscot Indian Nation, the Mashpee Wampanoag Tribal Council, the Wampanoag Tribe of Gay Head (Aquinnah), and the Narragansett Indian Tribe. All the New England Tribes have Tribal environmental management programs and have developed capability to assess environmental quality through monitoring, data collection, and reporting.

## EPA NEW ENGLAND ORGANIZATION

The organization of the region is reflected in the following chart:



The following sections briefly describe the role of the each of the offices.

**Office of the Regional Administrator:** The Regional Administrator's Office represents national environmental concerns, policies and programs within Region 1. It advises the Administrator/Deputy Administrator on program issues within the region, provides a regional perspective on national policy issues, and makes decisions in delegated areas of responsibility. The RA's Office manages the region's resources to ensure effective use and development of personnel, high productivity, cost-efficient operations and support of the Agency's EEO and environmental justice goals. The Office manages intergovernmental activities by working closely with state, tribal and local governments to attain national, regional, state, tribal and local goals. It translates national policy into programs which meet regional needs, makes decisions and manages programs in partnership with state environmental agencies and tribal governments to meet annual Agency initiatives, ongoing program goals and the Administrator's goal of managing for environmental results.

**Office of Ecosystem Protection (OEP):** The Office of Ecosystem Protection (OEP) is multi-media in focus, incorporating staff from air, water, energy/climate change, tribal, urban, and grant programs. Its mission is to establish environmental standards and goals, and build state and community capacity for meeting them. OEP is responsible for the protection of environmental resources and human health in an integrated and holistic manner. To accomplish this, the Office integrates programs such as air permitting, air toxics, indoor air, air quality, energy, municipal and community grants, water permits, water quality, surface water, wetlands, and drinking water in a way that reflects the connections among different environmental media. The Office uses measures of environmental health to evaluate the effectiveness of the region's efforts, and builds strong relationships with state and federal agencies, nonprofit organizations, and the public.

**Office of Environmental Stewardship (OES):** EPA New England's Office of Environmental Stewardship includes both the Region's Enforcement Office and the Assistance and Pollution Prevention Office. This 150-person team of scientific, engineering, technical, legal, and support staff promotes improved environmental performance from the regulated community. Our office encourages and recognizes responsible environmental management across all six New England states.

The Enforcement Office conducts the Region's enforcement of federal environmental laws and regulations by taking action against those who do not follow the law. These actions include both administrative and judicial enforcement cases in which the violator often must pay a monetary penalty.

The Assistance & Pollution Prevention Office provides outreach and technical assistance to the regulated community, principally in the form of workshops, printed materials, and on-site assistance. Information relates to both compliance and overall environmental performance. Staff also promote the use of Environmental Management Systems, support sustainability and waste reduction projects, manage programs to recognize environmental leaders, and develop projects to test innovative approaches to environmental problems. Much of this work is done in collaboration with internal and external stakeholders.

**Office of Environmental Measurement and Evaluation (OEME):** The Office of Environmental Measurement and Evaluation encompasses our laboratory, field and quality assurance functions, providing the infrastructure necessary to measure our success in the environment. The Office provides monitoring, analytical support, and data assessments to its internal and external customers. In addition, it manages the quality assurance, water quality monitoring and ambient air monitoring programs in the region. The overall mission of OEME is to protect human health and the environment by providing state of the art monitoring, evaluation, and technical expertise to EPA, state,

tribal and other partners. OEME is located at the region's state-of-the-art laboratory in North Chelmsford, Massachusetts.

**Office of Site Restoration and Revitalization (OSRR):** The Office of Site Restoration and Revitalization (OSRR) focuses on restoring currently contaminated properties through management of all our responsibilities under CERCLA, the RCRA corrective action program and the Underground Storage Tank program. OSRR integrates the Superfund removal and remedial programs so that all the available Superfund regulatory tools are administered within a single office in the region.

**Office of Administration and Resource Management (OARM):** OARM provides the advice and services needed to maintain the operations of the region and ensure effective stewardship of the public's funds. OARM is responsible for the leadership, support, communications and direction necessary to ensure efficient operations and a productive work environment in the region, and provides management advice, services, and support to the Regional Administrator and to all components of the regional office. Within OARM, the Human Resources Office; Grants Management Office; Contracts and Procurement Office; Information Resources Office; Computing Technology Office; Office of the Comptroller; and Customer Service/ Facilities Office report to the Office Director, who reports to the Regional Administrator/ Deputy Regional Administrator. The Office also provides management of the region's Safety, Health and Environmental Management program which includes a Center of Excellence with responsibility for providing nationwide expertise in the area of chemical risk assessment.

# EPA New England Selected Regional Priorities

In the remainder of this document, we have selected certain high priority programs which provide an illustration of the region's work. The highlighted programs include water quality, air quality, clean energy and climate change, environmental justice, science support, and site cleanup programs.

These summaries of selected regional priorities were drawn from a much longer accomplishments report drafted in late 2008. Consequently, the summaries are somewhat outdated. In addition, please be aware that these programs do not reflect the entirety of the region's work. Nevertheless, they should provide a good flavor of the work of the regional office.

## **CLEAN WATER**

### **Drinking Water Accomplishments**

**Leading the Way with New England's Private Well Initiative** - EPA Region 1 initiated the New England Private Well Initiative in 2001 and ever since has been a strong voice in focusing attention on private wells. This is critical because 2.3 million people, a fifth of New England's population, get drinking water from private wells. Unfortunately, contamination of private wells can happen from a variety of threats including bacteria, arsenic, and radon. The initiative teaches New England private well owners, local officials, and real estate agents how to test their well water, treat their water, and prevent water quality contamination around their homes. To reach private well users and other stakeholders, EPA closely worked with New England state drinking water programs, state university Cooperative Extension Services and many other national and regional agencies and associations. As part of the outreach campaign, a series of brochures and educational materials were developed by EPA, the states, and other partners which builds awareness of issues around private wells and advises residents on well water quality, testing, and operation. There have been two regional Private Well Conferences. The New England Private Well Initiative's 2007 Symposium reached more than 130 environmental and health officials, well drillers, real estate professionals and municipal officials. The symposium provided information on research, treatment and communication tools.

**Implementing the Arsenic Rule** - In 2002, EPA lowered its arsenic drinking water standard to 10 parts per billion due to concerns about long-term exposure to elevated levels of arsenic in drinking water which may lead to increased risk of cancer, circulatory problems, and skin damage. Since 2002, EPA Region 1 has been closely working with water associations, water utilities, and federal and state associations to spotlight the need to reduce arsenic levels in public drinking water. These extraordinary efforts included supporting technology workshops, hosting arsenic project funding forums with federal and state partners, distributing op ed pieces, and conducting ground water technology research. A national tool, the Arsenic Virtual Trade Show, was also designed and developed by EPA Region 1 and EPA's Office of Ground Water and Drinking Water. Initially, there were more than 300 public water supply systems in New England that served drinking water with arsenic levels above the drinking water standard. Through the proactive efforts taken by the New England states and EPA Region 1, all systems have stepped forward to take corrective action steps to reduce their arsenic levels in drinking water.

### **Addressing Nutrient Impairment**

Over the past four years, EPA New England has issued numerous POTW permits in both Massachusetts and New Hampshire containing stringent water quality-based

nutrient limitations. These limits are necessary to address water quality impairments such as low dissolved oxygen and excessive plant growth. Stringent total phosphorus limits have been required for discharges impacting fresh water and stringent total nitrogen limits have been required for discharges impacting marine waters. Several permits require the control of both nutrients.

### **Ocean and Coastal Protection in New England**

**Clean New England Beaches** - EPA's Beach Initiative builds on the basic provisions of the federal Beach Act of 2000 – standardized monitoring, data submission, and public notification – by working with state and local beach managers to identify and eliminate sources of bacteria that cause chronic beach closures. Since 2001, EPA has awarded coastal New England states over \$8 million to implement beach monitoring, assessment and public notification programs. During that time, the number of coastal beaches with monitoring has doubled from about 400 to about 800 beaches; all beaches have been assessed and potential pollutant sources mapped; and all five states have adopted the same indicator bacteria (enterococci) and standard to notify the public of risks to swimmers. Beach goers now are notified of water quality conditions at their favorite beaches by on-site flags, signs, newspapers, telephone hot lines, and new and improved web sites. EPA and state officials have provided technical assistance to communities to identify and control sources of fecal contamination from storm water and other pollutant sources. We have worked closely with seven communities experiencing chronic water quality problems to develop action plans to identify and eliminate sources of pollutants. As a result of these efforts, including remediation of pollution sources, water quality is improving at beaches throughout New England.

**No Discharge Area Strategy** - Sewage discharges from boats can contain bacteria, nutrients, and chemicals, and during dry weather, often represent the only possible source of sewage that can cause beaches and shellfish beds to be closed. New England is the national leader in the designation of no discharge areas (NDA), where the discharge of treated and untreated boat sewage is prohibited. From 1991 to 2004, EPA made slow but steady progress designating coastal NDAs. At the end of 2004, about 22 percent of New England's coastline (1,095 miles of the 4,965 mile coastline) was NDA, including all Rhode Island state waters; Buzzards Bay, Nantucket, and several harbors on Cape Cod in Massachusetts; and a short stretch of Connecticut's coast. In 2005, EPA took the initiative to accelerate the pace of NDA designations and issued a plan to designate all coastal waters as far east as Mt. Desert Island, Maine. Since then, the amount of coastline covered by the NDA designation has doubled, to 45 percent (2,209 of 4,965 coastline miles), including all Connecticut coastal waters; all New Hampshire coastal waters; Casco Bay in Maine, and Cape Cod Bay, Boston Harbor, and Salem Sound in Massachusetts. EPA is working aggressively to complete Massachusetts and Maine.

**National Estuary Program** - The National Estuary Program (NEP) is a unique, voluntary, community-based program to restore and maintain the water quality and ecological integrity of “estuaries of national significance.” One of its primary goals is to restore and protect fish and wildlife habitat. Since 2003, when EPA began to track this data, the six New England NEPs collectively have restored or protected 21,478 acres, including tidal and inland wetlands, eelgrass beds, mudflats, dunes, coastal grassland, and anadromous fish corridors. The Long Island Sound Study developed the nitrogen TMDL for the Sound and helped Connecticut create a nitrogen credit trading program to facilitate nitrogen load reductions by municipal wastewater treatment facilities. The NH Estuaries Project and Casco Bay Estuary Partnership have been regional leaders in the development of nutrient criteria, and all six NEPs have been focused on storm water management. In 2008, the NH Estuaries Project and Massachusetts Bays Program were selected to conduct two of only six Climate Ready Estuaries pilot projects among the 28 NEPs across the country. The purpose of the CRE Program is to help NEPs and coastal communities to become “climate ready” by providing tools and assistance to assess climate change vulnerability and plan for adaptation.

### **Power Plant NPDES Permitting**

Most large power plants require huge volumes of cooling water each day, threatening aquatic organisms with both the intake of water and the discharge of heat. EPA New England has carefully analyzed each power plant we permit and developed plant specific conditions for each facility. We have also provided support to authorized states in their power plant permitting. Examples from the past five years are provided below.

**Brayton Point Station** – After nearly four years of permit appeals, EPA New England, together with the states of Rhode Island and Massachusetts, secured a critical agreement with Dominion, operator of the Brayton Point Station Power Plant, to put into effect a final NPDES discharge permit. The plant, located on the shores of Mount Hope Bay, is the largest fossil-fuel burning power plant in New England (1600 megawatts). Mount Hope Bay provides important spawning, nursery and migratory habitat for many species of fish. Under current operations, each day the power plant withdraws nearly one billion gallons of water from the Bay, (a volume estimated to be equivalent to cycling the entire volume of water in the bay through the facility seven times each year), and circulates it through the facility to condense the steam used to produce electricity. The water is then discharged back to the Bay at elevated temperatures of up to 95 degrees Fahrenheit. Operation of the current system damages or kills many aquatic organisms by entraining and impinging them in the cooling water intake process, in addition to elevating water temperatures in the Bay. By constructing and operating a modern closed-loop system under the terms of an administrative enforcement order issued by EPA, Dominion will comply with strict flow and heat

reductions (95% reductions from current operation) specified in the 2003 final NPDES permit.

**Mirant Kendall Power Plant** - In September 2006, EPA and MassDEP issued a permit for the Mirant Kendall Station (MKS) power plant in Cambridge, Massachusetts to meet the requirements of the Clean Water Act. Mirant-Kendall Station (MKS) is a 256-megawatt (MW) and is the largest industrial discharger on the Charles River. This permit is an important component of continuing broader public and private efforts to restore the health of the Charles River Basin and Boston Harbor. The permit addresses the impacts of withdrawing, heating and discharging Charles River water at flow rates up to 80 million gallons a day (MGD) through MKS's once-through cooling system. After an extensive multi-agency analysis and public review process, this final permit carries stringent seasonal discharge temperature limits, enhanced water withdrawal screening requirements, and real-time biological and water quality monitoring systems that were not present in the previous permit. Mirant is currently considering changes at Kendall Station that would allow them to supply more steam to customers and discharge the remaining waste heat to the atmosphere. Such changes would significantly reduce the volume of water withdrawn from the river and eliminate the discharge of heat under typical operating conditions.

### **Sanitary Sewer Overflows**

Sanitary sewer overflows (SSOs) are releases of untreated sewage into the environment that occur when there is an overflow, spill, or release of raw or partially-treated sewage from a sanitary sewer collection system before it reaches a sewage treatment plant. Such releases regularly contaminate our nation's waters, degrade water quality and expose humans to viruses and other pathogens that can cause serious illness. In addition, these discharges can occur as basement backups, causing property damage and further threatening public health.

In 2007, EPA New England launched an unprecedented state wide effort with the goal of eliminating SSOs in Rhode Island. In a letter to municipal leaders throughout the state, EPA announced that we would be using a combination of enforcement and assistance to address past SSO problems and work with both the RI Department of Environmental Management and local communities to prevent future collection system overflows.

Since then, EPA New England has issued orders to over a dozen Rhode Island communities, reviewed self-assessments and capacity, operation and maintenance plans from all of these communities, developed assistance tools and provided training and other assistance on a wide range of topics, including:

- Collection system Capacity Management, Operations and Maintenance

- Collection system preventive maintenance
- Asset management software programs
- Geographic Information Systems and mapping
- Energy use and efficiency

## **Stormwater**

**Regional Integrated Storm Water Strategy** - EPA has developed an integrated storm water strategy to protect and restore watersheds in New England by reducing the adverse impacts from storm water runoff. The strategy employs regulatory and non-regulatory approaches to maintain or restore a watershed's hydrologic and ecological functions. This integrated storm water strategy is a dynamic document that will highlight regional priorities over the next two to three years and capitalizes on cross-divisional opportunities within the region. There are four major objectives in the strategy.

- Issue and implement the next generation of small MS4 permits for MA and NH and the Worcester and Boston MS4 permits and provide outreach regarding storm water management planning including funding mechanisms. Share key features of new permits with authorized states.
- Reduce pollutant loading (pathogens, nutrients, TSS, metals, etc.) in storm water discharges.
- Build EPA New England's capacity to maintain and improve watershed hydrology and water quality, reducing impairments related to impervious cover, and promoting the use of low impact development.
- Increase compliance with the construction and multi-sector general permits in New England.

In addition to these four objectives, there are three strategic themes that underpin these objectives and guide our efforts to meet our storm water goals. The first theme is an integrated assistance/enforcement approach. The second theme is place-based targeting. The third theme is measurable environmental results. These themes reflect the fact that there is much overlap between the objectives.

**Re-issuing Storm Water Permits in New England** - Issuing and implementing the next generation of storm water permits is a critical piece of the strategy. EPA New England is working to re-issue several key storm water permits including phase 1 permits Worcester and Boston as well as one small MS4 permit in New Hampshire and five small MS4 permits in Massachusetts. EPA has proposed the Worcester permit and in early 2009 will be proposing the Boston and New Hampshire and Massachusetts small MS4 permits. Changes are anticipated in the new MS4 general permit to increase the effectiveness of the storm water management program of each permittee in order to

reduce the adverse effects of storm water runoff. It is anticipated that changes will include:

- An enhanced illicit detection discharge and elimination (IDDE) program with specific requirements to identify, isolate and remove illicit connections, thereby removing sanitary and other waste from the storm water system;
- Monitoring of storm water;
- An enhanced construction site storm water runoff control program;
- Provisions that encourage the use of low impact design and green infrastructure techniques; and
- Requirements derived from approved total maximum daily loads (TMDLs) to achieve specific water quality standards.

### **Improving New England's Urban Rivers & Streams**

**Charles River** - During 2007, the Charles River had its best water quality for boating and swimming since EPA's intensive Clean Charles Initiative began in 1995. EPA's grade for the lower Charles River this year is the highest-ever: a B++. For 2007, the Charles met boating standards a superb 100 percent of the time, and swimming standards 63 percent of the time, according to data collected by the Charles River Watershed Association (CRWA) between Watertown Dam and Boston Harbor. The Charles has improved dramatically from the launch of EPA's Charles River Initiative in 1995, when the river received a D for meeting boating standards only 39 percent of the time and swimming standards just 19 percent of the time.

Since 1995, the Charles River Initiative has featured coordinated efforts between EPA, state and local governments, private organizations, and environmental advocates, working together to improve the health of the lower Charles River. Cleanup work by local municipalities and the Massachusetts Water Resources Authority (MWRA) that started years ago continues to reduce the flow of contamination into the Charles.

While we have made strides to reduce bacteria, high levels of phosphorus in the past several years have caused the River to turn a bright shade of blue-green during summertime algae blooms. The color is caused by blooms of cyanobacteria, which can be harmful to both people and pets. In October, 2007, EPA and the state began a process to limit phosphorus entering the Charles River by establishing a new "Total Maximum Daily Load" (TMDL) for discharges of phosphorus into the lower Charles River. EPA and MassDEP developed and approved the new limits using extensive data collected in the Charles over several years. The TMDL found that additional phosphorus reductions are needed if the river is to meet minimum water quality standards. In particular, phosphorus from large commercial, industrial, and residential complexes – which are largely unregulated now – must be reduced by 65%. These reductions are needed to restore the Charles to environmental health, and to protect the investments

that Charles River communities have already made in improving water quality in the river.

EPA and MassDEP have developed an approach that would limit the discharge of phosphorus in order to tackle the algae problem in the River. On November 17, 2008, EPA New England announced a first-in-the-nation “residual designation” pilot for storm water discharges in three communities in the headwaters of the Charles. Large industrial, commercial, and residential facilities in these communities will need to obtain coverage under an EPA permit, which will require implementation of management practices to reduce phosphorus discharges by 65%. This reduction will address serious environmental problems both in these communities and downstream. At the same time, MassDEP is proposing a statewide storm water program that will lead to water quality improvements across the Commonwealth. EPA and MassDEP are working closely together to ensure that these storm water efforts are complementary.

**Boston Harbor/Charles River Sewer Overflow Agreement** - On April 27, 2006, the U.S. District Court approved a settlement between the EPA and the Massachusetts Water Resources Authority (MWRA) that requires dramatic reductions of combined sewer overflows to the Charles River. The settlement is expected to bring CSO discharges to the Charles River down to approximately eight million gallons per year, from a 1988 level of 1.7 billion gallons, a 99.5% reduction. This follows the District Court’s order of June 30, 2005, which will virtually eliminate combined sewer overflows to Boston beaches.

These two actions cap a 20-year cleanup effort that is transforming Boston Harbor – once one of the most polluted harbors in the country – into a model for urban waters. The 2005 order addresses a string of beaches along the South Boston peninsula, which are now closed frequently each summer. Boston’s combined sewer and storm drainage system overflows during heavy rains as often as 21 times per year. After a previous plan to address this problem was stalled by political opposition, lengthy negotiations produced an agreement to construct a storage tunnel which will prevent these overflows up to the 25-year storm. Construction will be completed by May 2011, at a cost of approximately \$245 million.

## CLEAN AIR

### Ozone and Fine Particles

**Implementation of the 1997 Ozone Standard** - In 2004, areas that were not achieving the 0.08 part per million (ppm) ozone standard were designated “nonattainment,” and these areas were required to submit their attainment plans to EPA in June 2007 showing how attainment would be reached by the end of 2009. Region 1 assisted the states in the development of these plans by providing written comments to the states on draft and proposed version of the plans. Final State Implementation Plans (SIPs) were received from CT, MA and RI including reasonable further progress (RFP) plans, attainment demonstrations, and reasonably available control technology (RACT) programs for industrial sources.

As a result of the NOx SIP call, there have been significant reductions of NOx emissions from the Electric Utility sector. In those New England states in the NOx SIP call (CT, MA, and RI) and those upwind states found in the NOx SIP Call to be contributing to any New England state, the collective summertime NOx emissions from the Electric Utility sector decreased from approximately 613,000 tons in 2002 to 278,000 tons in 2007, a 55% reduction. During this same time period, there have also been significant NOx reductions from on-road mobile sources as a result of emissions standards for new automobiles and light-duty vehicles.

**Implementation of 1997 PM<sub>2.5</sub> standards** - A portion of southwest Connecticut (i.e., Fairfield and New Haven counties) was designated nonattainment for EPA’s 1997 annual fine particle standard as part of a the New York City Metropolitan nonattainment area. Region 1 assisted CT with the development of a plan describing the measures necessary to bring the area into compliance with the standard by 2010.

To reduce fine particles in New England, a number of measures have been implemented. Most notably, the Region and states have targeted the reduction of diesel emissions. In addition, outdoor wood boilers have also been a focus in New England. The Region has assisted the states of Vermont, Maine, and Massachusetts in the development of regulations to reduce emissions from outdoor wood boilers. Also, the Region is assisting states in the development of Regional Haze SIPs which outline the measures they will take to decrease their emissions impact on visibility impairment in the six Class I areas in New England. One key strategy implemented by CT, MA and NH is addressing SO<sub>2</sub> from power plants. Between 2002 and 2007, SO<sub>2</sub> from power plants dropped by more than 30% (from 147.5K tons to 102.9K tons).

Ambient data indicates good progress in meeting the annual standard of 15 ug/m<sup>3</sup>. Based on 2005 - 2007 data, there are 4 monitors within the New York City area that still exceed the standard. At each of these monitors between 2005 and 2007,

annual averages have dropped by at least 0.7 ug/m<sup>3</sup> indicating good progress toward meeting the standard by 2010.

**Air Quality Outreach** - The Region has worked with the New England states to develop next day air quality forecasts for ozone and fine particle levels. The Region has used this information in its air quality alert program. New Englanders could sign up to receive an e-mail or fax alert when poor air quality was predicted in their area. Over 2300 individuals and organizations participated in this program. Last year, we assisted the New England states in switching over to the new national EnviroFlash system run by EPA Headquarters. The Region also issues press releases when poor air quality is expected to be a widespread regional event, the only Region to do this. In addition, we have also been successful in working with local TV meteorologists to have air quality information displayed during the TV news.

### **Diesel**

Region 1 is a national leader in its efforts to implement innovative strategies to reduce harmful diesel emissions and improve public health.

**Anti-idling Initiatives** - EPA New England has a strong anti-idling enforcement program. Five of the New England states have anti-idling regulations in place and three states (Connecticut, Massachusetts and Rhode Island) include these rules in their state air quality plans, giving EPA the authority to enforce the rules. Since 2002, EPA New England has taken enforcement action against numerous facilities, including bus operators at Logan Airport, the Massachusetts Bay Transportation Authority, Peter Pan Bus Lines, Capitol Waste, Waste Management Inc., Allied Waste, and Walmart. In addition, other Clean Air Act enforcement settlements have resulted in several clean diesel projects in the region-including the retrofit of the city of Boston's school buses, cleaner diesel fuel in commuter trains operated by the Massachusetts Bay Transportation Authority and the installation of anti-idling signs at Walmart stores nationwide.

**School Bus Retrofit Programs** - EPA has worked with the New England states to establish programs to reduce emissions from school buses. Every New England state has a program in place to reduce school bus idling, and Connecticut, Maine, Massachusetts, and Rhode Island have established programs to retrofit school buses statewide. Since 2003, EPA's Clean School Bus USA program has awarded nearly \$3.7 million in grants to fund fifteen projects that retrofit, replace and reduce idling from more than 1000 school buses across New England. In response to a 2002 EPA enforcement action, the Rhode Island Public Transit Authority (RIPTA) retrofitted their buses with diesel particulate matter filters and fueled their fleet with ultra-low sulfur diesel (ULSD) prior to the federal mandate.

### **Mercury Reductions at Power Plants**

Over the last several years, the Region has worked with the New England states to address mercury emissions from power plants. Although a federal rule requiring mercury emission reductions from power plants does not exist at this moment, the three New England states that were required by the Clean Air Mercury Rule to reduce mercury emissions have regulations or legislation that remain in effect. Massachusetts' mercury regulations require a 95% reduction or meeting an emission limit of 0.0025 lbs/GWh by October 1, 2012. Connecticut has legislation that the state has implemented through permitting that limits mercury emissions from affected utilities to 0.6 lbs/TBtu heat input or 90% removal by July 1, 2008. New Hampshire has legislation that requires Merrimack Station in Bow to install an acid scrubber by July 1, 2013. The scrubber is expected to reduce mercury emissions by 80%.

### **Air Toxics Community Projects**

Under the regional Healthy Communities Grant Program and the Community Action for a Renewed Environment (CARE) Program, the region has been involved in several projects at the community level aimed at identifying and reducing risks from air toxics. This work has been a high priority for the Region and we are currently working with seven CARE communities and the Healthy Community Asthma Coalitions. The CARE communities include: New Haven, CT; Holyoke, MA; Boston, MA; Newport, RI; Providence, RI; Somerville, MA; and Bridgeport, CT. Several of these projects have implemented significant air toxics risk reduction strategies and under the CARE program these communities are also addressing water and land use issues. For example, New Haven developed a strategy to address diesel exhaust; adopt passenger vehicle emission standards; conduct pollution prevention outreach to local stationary sources; and implement indoor air toxic activities.

## **CLEAN ENERGY AND CLIMATE CHANGE**

### **Energy Team Background and Mission**

In order to reduce energy costs and greenhouse gas emissions from fossil fuel combustion, Region 1 formed the Energy Team in 2001. EPA Region 1 was the first regional office to act as a local presence on behalf of several HQs-based voluntary energy programs including Combined Heat and Power, Green Power Partnership, and ENERGY STAR. Successes included significant expansion of participation in these programs by New England industries and institutions. Region 1, in collaboration with HQs, worked with state energy and environmental offices for several years to ensure that state energy policies incorporated EPA's clean air and climate change priorities. This was highlighted by Connecticut being selected as the first partner in EPA's Clean Energy-Environment State and Local Program.

The team also promotes the development of clean and renewable energy and guides projects through the permitting and NEPA processes (e.g. Cape Wind and LNG projects). Finally, the team works with stakeholders to advance policies and practices for mitigation, response to and adaptation for climate change.

### **ENERGY STAR Outreach**

The Energy Team supports the ENERGY STAR (ES) program through innovative outreach activities including the Community Energy Challenge (CEC). Technical assistance is provided for benchmarking buildings and water and wastewater treatment facilities. Since 1999, when ES Portfolio Manager (PM) was developed, there have been 5,180 buildings benchmarked in New England. Of these benchmarked buildings, 238 have received the ENERGY STAR label, and 1,140 organizations have signed on as ENERGY STAR partners. Between 2004 and 2008, Region 1 had a 415% increase in buildings benchmarked. This is the third highest percent increase in benchmarking during that time among the ten EPA regions. This is attributed to the Region's efforts in a number of areas including: (1) outreach to specific sectors including office buildings, courthouses, supermarkets, hospitals, hotels/motels, and financial institutions; (2) work with colleges and universities to promote energy efficiency in campus buildings; and (3) the CEC that works with communities to assist K-12 schools. Over the years, Region 1 has done numerous press releases and RA events promoting ES labeled buildings (e.g., Cambridge Saving Banks, John Hancock Tower, UNH dormitories, Hannaford Bros. and Stop & Shop supermarkets, Tufts Health Plan building).

## **Community Energy Challenge**

In March of 2007, the Energy Team created the Community Energy Challenge. Communities who sign onto the Challenge commit to: 1) assess energy use in their municipal buildings, schools, and wastewater facilities using ENERGY STAR tools; 2) commit to reducing energy per square foot by at least 10%; and 3) promote energy efficiency and renewables to companies and organizations in their community. To date, 122 communities representing more than 27% of New England's population have signed up for the Challenge. In addition to presentations and trainings given by staff, seven interns have benchmarked approximately 400 buildings to date. Participants in this program have seen energy cost reductions ranging from \$40,000 to \$1 M and are installing renewable sources of energy.

## **Energy Efficiency at Waste Water Treatment Plants (WWTP)**

New England has among the highest energy costs in the nation and water and wastewater utilities are often the largest single energy user in a municipality. Many of these facilities were built several decades ago to meet water permit requirements and without energy efficiency in mind. As part of the CEC, 3 trainings have been conducted by Regional staff for water and waste water operators, managers, architects and engineering firms to provide information on energy efficiency and renewables. Additionally, Region 1 initially piloted the new ENERGY STAR Portfolio Manager benchmarking tool for WWTPs and subsequently assisted over 50 facilities in benchmarking their facilities to determine the energy efficiency of their plant and where they should look to reduce their energy use.

## **New England Governors/Eastern Canadian Premiers (NEG/ECP) Regional Climate Action Plan**

The NEG/ECP organization is working on climate change as it is a cross-boundary issue. The 2001 Climate Action Plan contains initiatives to be carried out by the multi-state/provincial, multi-agency environmental, public utility and transportation agencies. It sets the following aggressive greenhouse gas emission reduction goals: (1) at or below 1990 levels by 2010; (2) 10 % below 1990 levels by 2020; and (3) 75% below present levels by around 2050. EPA Region I, with support from HQ Office of Air and Radiation and the Office of Research and Development, has actively participated in the Climate Action Plan development with direct funding, in-kind and technical support on subjects including government lead-by-example, energy efficiency, biofuels, transportation, colleges and universities, local government, and natural resource managers.

## **Regional Greenhouse Gas Initiative (RGGI)**

The Regional Greenhouse Gas Initiative, initiated in 2003, is a cooperative effort by ten Northeast and Mid-Atlantic States to reduce carbon dioxide emissions from large power plants. RGGI is the first mandatory, market-based cap and trade program for CO2 emissions reductions in the country. Participating states will stabilize power sector CO2 emissions at the capped level from 2009 through 2014 at 188 million tons of CO2. The cap will then be reduced by 2.5 percent in each of the four years 2015 through 2018, for a total reduction of 10 percent. RGGI's auction and trading system provides for buying, selling and trading of CO2 emission allowances. Proceeds from the auctions will support state administered programs for GHG reductions through energy efficiency and clean renewable energy projects. The first auction in September 2008 raised over \$38.5 million for the states of Connecticut, Maine, Maryland, Massachusetts, Rhode Island and Vermont. All ten RGGI states will participate in future auctions.

### **Climate Change Conference for Researchers, Regulators and Resource Managers**

Region 1 has been working with its partners to prepare for the inevitable impacts on New England's natural resources and physical infrastructure as our climate changes. Region 1 sponsored a conference in June 2008 at UNH, which attracted 190 of New England's leading scientists, academic experts, and regional, state and municipal officials to discuss the latest research and best way to address the impacts of climate change impacts in New England. The conference included presentations on the: impacts of sea level rise and storm damage; impacts of temperature and precipitation changes; and impacts on clean drinking water supply, and treatment plants. The goals of the forum were to learn about the latest research on the impacts of climate change, identify science-based tools that environmental regulators can use to plan for those impacts, and establish a continuing dialogue between public officials and scientists. The post-forum follow-up has included discussion with the states, municipalities, nongovernmental organizations, EPA and other federal agencies about the development of science-based tools to help communities prepare for and adapt to climate changes.

## **ENVIRONMENTAL JUSTICE**

EPA New England's commitment to environmental justice is evidenced by its multi-faceted approach to ensuring the continued integration of environmental justice into the regional programs, policies, and activities. The EPA New England EJ program is a national model for EJ integration and can be replicated by others. EPA New England's approach to integrating environmental justice includes:

- Implementing an EJ policy
- Engaging an active EJ Council for guidance and direction
- Ensuring EJ awareness throughout the region through mandatory training
- Developing EJ tools and guidance
- Collaborating with our state counterparts and other external stakeholders
- Regular tracking and reporting of progress

### **EJ Policy**

During the 1980s, EPA and others became concerned that some racial, ethnic and socioeconomic groups were suffering a disproportionate share of environmental burdens. To address this concern, EPA New England chartered an Environmental Equity Council and issued the first Environmental Equity Policy in the nation in 1993. This idea embodied in the original Environmental Equity Policy is now referenced as environmental justice. This policy sets the parameters and framework against which the region has developed our EJ Action Plans, with specific implementation strategies designed to institutionalize EJ in the region's daily work. The policy can be found at: <http://www.epa.gov/region1/ej/ejpolicy.html>.

### **EJ Council**

In 1999, the EPA New England Office Directors established the regional EJ Council, charged with the responsibility of developing EJ policy, guidance and implementation strategies to institutionalize EJ principles and related activities throughout the regional office. The EJ Council is chaired by the Director of Civil Rights and Urban Affairs and is comprised of the regional EJ Coordinator, the Deputy Office Directors and designated staff from each of the six program and administrative offices in the region. Each Deputy Office Director and the EJ Coordinator is the lead for each of the Strategic Goals outlined in the EJ Action Plan. The EJ Council meets monthly. Strategic and operational planning around EJ is carried out through the Council, ensuring full engagement by all regional program and administrative offices.

Through the National and Regional Action Plan process we have created a management structure of assigning accountability to the appropriate level of

Management; our Deputy Office Directors, who staff the EJ Council and are responsible for securing and deploying resources in ways to make a difference in the quality of lives to New Englanders and contributes to national progress in important areas.

### **EJ Training and Guidance**

EPA New England has mandated that all employees be trained in EJ, in order to acquaint or re-acquaint them with the legal and policy framework of EJ and to provide them with region-specific case studies illustrating real world issues and accomplishments. Approximately 93% of EPA-NE employees have been trained as of July 2008.

An EJ Functional Guidance Compendium has been developed to supplement the EJ training by highlighting some program-specific considerations that identify how staff can have an impact on EJ in their daily work. The EJ Functional Guidance Compendium is a major element of EPA New England's strategy to institutionalize environmental justice. The goal of this guidance is to provide function-specific direction that will enable staff to integrate environmental justice principles into their day-to-day activities. The manual contains ten guidance chapters covering the Brief Users= Guide to the EPA New England EJ Desktop Mapping Tool; Public Involvement; Tribal Consultation; Contracts and Procurement; Development and Approval of State Programs; Federal Financial Assistance Agreements; Inspections, Enforcement and Compliance Assistance; Performance Partnership Agreements with States; Permitting; and Waste Site Cleanup, Emergency Response and Brownfields. Training on the guidance took place in conjunction with the compendium's release in calendar year 2004. The EJ Council is currently considering updating the guidance.

### **Urban Environmental Program (UEP) Expanded**

The Urban Environmental Program's mission is to improve the environment and enhance the quality of life for urban residents throughout New England. The program began as an initiative and is now a dedicated funded program to address EJ on the ground. The UEP team continues to lead the region in, and serve as a national model for, stakeholder participation, community involvement, and capacity building. Many, if not all, of the issues the UEP team is involved with are New England-wide EJ issues. One particularly successful example of UEP's work is the regional listening session model, which has proven to be an effective approach for stakeholder involvement. The urban program model is designed to be replicated and transferable to communities across New England, and allows communities to build capacity to assess and resolve environmental problems. UEP has begun to transfer the model to Bridgeport, CT; Stamford, CT; and State-wide urban Rhode Island.

### **Notable Environmental Justice Accomplishments**

EJ principles have been systematically built into every facet of the region's work, and the results have been dramatic:

- Lead poisoning in Boston children – once over 1,100 cases each year – has dropped by 68%, and is on track for elimination, thanks to a collaborative effort between EPA and community groups.
- Emissions from trucks and buses idling in urban neighborhoods have been reduced by nearly 40,000 tons per year – reducing the asthma threat in vulnerable communities, while saving \$10 million annually in fuel costs.
- The region's Brownfields program is among the most aggressive in the country – winning nearly three times its proportional share of grants, and second only to Region 5 in the number of sites cleaned up. Urban hazardous waste sites have become parks, housing, community gardens, and ballfields.
- EJ has become a key factor in enforcement targeting – producing outstanding settlements in EJ areas, and ensuring that all communities benefit from the full protection of federal environmental laws.

## **PUTTING SCIENCE AND TECHNOLOGY TO WORK ON 21ST CENTURY CHALLENGES**

While all of the EPA New England regional programs employ science and technology, the EPA New England Regional Laboratory in North Chelmsford, Massachusetts is ground zero for the region's science and technology skills. The role of the regional laboratory is to monitor and analyze the health of the New England environment and its impacts on residents. Specifically, the laboratory provides air and water quality monitoring, chemistry and biology analytical support, and data assessments for regional, state and tribal environmental programs.

EPA New England has recognized that its staff cannot meet the environmental challenges of the 21st century with the science and technology of the last century. In recent years, EPA New England has worked hard to develop new cutting-edge capabilities and analytical methods to support the agency as it tackles ongoing and emerging challenges, including climate change, perchlorate in drinking water, persistent bioaccumulative toxins in fish tissue, potential widespread contamination from terrorist incidents, and environmental justice.

### **EPA New England's Chemistry and Biological Analytical Capabilities**

**Enhancements to Chemistry Laboratory Capabilities** - The team of chemists at the region's laboratory provides analytical testing for toxic chemicals in air, water, soil, and waste samples. The chemistry laboratory uses a broad array of sophisticated equipment to perform analyses that range from fast turn-around, high throughput screening methods to "gold standard" confirmatory methods designed to detect very low concentrations of toxic materials. The laboratory's testing supports a variety of regional and state surveys to study ambient conditions, investigate industrial contamination, and rapidly assess accidental releases of hazardous chemicals.

As discussed below in dedicated sections, the chemistry laboratory has recently focused on developing on new capabilities to support homeland security and environmental justice. However, it has also devoted significant effort to enhancing analytical testing critical to new challenges in cleaning up contaminated sites in the region, including:

- **Perchlorate Analyses:** Chemists at the regional laboratory developed a high sensitivity liquid chromatography mass spectrometry capability to detect perchlorate in ground water. The laboratory's unique capability to detect the chemical at low levels allowed Massachusetts and New Hampshire to map the chemical's distribution and occurrence in drinking water. The laboratory's support proved critical to state environmental officials' decisions about the need for regulatory controls and remediation of hot spot areas.

- **1,4 Dioxane Analyses:** The laboratory also developed a gas chromatography mass spectrometry capability to detect 1,4 dioxane in ground water. Used in small quantities as a stabilizer in chlorinated solvents, the chemical is highly soluble in water and difficult to detect. The laboratory's ability to detect this compound has proved essential to the accurate assessment of the extent and impact of contamination at sites that have been heavily contaminated with chlorinated solvents.
- **Mobile Laboratory:** The laboratory's mobile lab performs field analytical methods in support of real-time sampling programs and removal actions. The quick turnaround analyses performed by the mobile lab have guided the extent of excavation, sample location selection, and termination or continuation of sampling at many sites. Anecdotal evidence from other laboratories indicates our focus on field analytical methods actually results in a higher percentage of utilization of our mobile lab in comparison to mobile labs carrying more sophisticated, but less robust, instrumentation.

**New Biology Laboratory Capabilities** - The biology laboratory provides a variety of analytical capabilities in support of New England's water quality and hazardous waste programs. The lab conducts bacterial analyses to measure drinking water and surface water quality in our microbiology lab, and tests the toxicity of surface waters and treatment plant discharges and sediments from lake and river bottoms in our Aquatic and Sediment Toxicity labs. The biology laboratory has recently expanded its capability in the following areas:

- **Direct Mercury Analyzer:** The laboratory recently began operation of a Direct Mercury Analyzer, which allows the agency to rapidly analyze sediment and all type of tissues such as fish, insects, and bird eggs for total mercury.
- **Polymerase Chain Reaction (PCR):** The region's new PCR lab uses DNA replication to conduct rapid testing of recreational waters, bioremediation of contaminated waste sites, and identification of human pollution sources. The region's PCR laboratory has already been selected by the agency to conduct the analysis of thousands of samples on three major national studies.

### **Homeland Security Laboratory Capabilities**

EPA and the Department of Homeland Security (DHS) are working jointly to address gaps in national environmental laboratory capability and capacity. EPA New England has been the acknowledged national leader in these efforts. At its laboratory in Chelmsford, Massachusetts, the region is working on several projects to enhance the region's ability to respond to emergencies: (1) building a network of New England laboratories capable of a coordinated response to suspected drinking water contamination incidents; (2) evaluating a prototype All Hazard Receipt Facility designed

to screen unknown or suspicious samples for various hazards; and (3) developing capability to analyze environmental samples for chemical warfare agents.

### **EPA New England's Monitoring Programs**

**Monitoring New England's Air Quality** - The regional laboratory's air monitoring team works with the states and tribes to operate more than 300 ambient (outdoor) air monitors in New England for six priority air pollutants (ozone, sulfur dioxide, carbon monoxide, nitrogen dioxide, particulate matter (PM10 and PM2.5)), as well as monitors that measure chemicals that form ozone (ozone precursors), and air toxics. Data from these sites are used to ensure attainment of the national health-based standards and to assist in the development of air pollution control programs. The air monitoring team also supports air toxics monitoring projects, analyzes air quality at hazardous waste sites, and supports mercury and acid rain deposition programs.

In recent years, the monitoring team has expanded its capabilities to address new challenges.

- Vapor Intrusion Studies: Demand for vapor intrusion studies at hazardous waste sites has been steadily increasing in the past few years. Where EPA is concerned with the possibility of VOCs off-gassing from contaminated soils and/or groundwater, migrating into buildings and impacting indoor air quality, the team can collect air and soil gas samples inside, outside and underneath buildings. As a result of this testing, buildings with unsafe air quality will have soil gas mitigation systems installed to minimize exposure.
- BioWatch: After 9/11, the team assisted Massachusetts in rapidly deploying a BioWatch air monitoring network capable of early detection of the release of biological agents in the greater Boston area. Staff helped locate and evaluate numerous sites for monitors and provided technical assistance and grant funding to the state.

**Ecosystem Monitoring** - The Ecology Monitoring Team measures the water quality and ecological health of New England's streams, lakes and estuaries, provides support to regional water quality programs (including initiatives on beaches and urban rivers), assists New England states and tribes in implementing monitoring programs, and conducts numerous special projects for the states and tribes. The group regularly puts to use such capabilities as point and nonpoint source monitoring, time-of-travel and dispersion dye studies, assessments of macroinvertebrates and fish communities assemblages, sediment oxygen demand (SOD) studies, electrofishing, and collection of biological tissue for analysis to assess bioaccumulation of toxics.

In recent years, the team has had notable success in designing and implementing regional water survey and initiating a unique loan equipment program to support volunteer organizations:

- **Regional Surveys:** The team has played a major role in developing probabilistic monitoring approaches that allow general conclusions to be drawn using data from statistically-selected monitoring sites. The team led the New England Wadeable Streams (NEWS) and New England Lakes and Ponds (NELP) projects in efforts to better understand and characterize the health of New England waters. These large-scale regional studies, each involving sampling scores of water bodies throughout New England, served as pilots for corresponding probabilistic studies in other regions of the country.
- **New England Volunteer Monitoring Equipment Loan Program:** In 2006, EPA New England launched a new, first in the nation program aimed at expanding the quantity and use of data generated by volunteer monitoring organizations. By loaning water monitoring equipment to volunteer organizations, we have significantly increased the geographical coverage of our monitoring, the variety of sampling parameters, and the frequency of data collection. In the first year, the loan program directly resulted in an additional 150 new volunteers collecting monitoring data on New England waters, and added at least 10,000 new data points, which are being used by EPA and the states to identify and assess water quality problems. In the first three years of this program, EPA NE has provided 47 loans of equipment to New England organizations.

### **Support of Environmental Justice through Science**

In 2004, EPA New England organized a first-of-its-kind conference to focus on environmental justice science and research. The conference brought community activists and environmental scientists together to discuss the scientific support needed on a range of environmental issues facing disadvantaged communities.

Employees from the regional laboratory responded to the conference by supporting environmental justice communities with analytical and field capabilities. Some of these efforts in environmental justice areas are simply an extension of the types of support the laboratory has provided EPA New England's environmental programs for many years. In recent years, the laboratory's employees have worked to establish fine particulate matter monitors in urban neighborhoods, conducted sampling and bacteria analyses of such urban rivers as the Mystic and the Charles, provided quality assurance assistance to grantees cleaning up brownfield sites, and analyzed many thousands of soil samples from hazardous waste sites in hard-hit communities.

In addition to this day-to-day work, the regional laboratory has taken its environmental justice efforts several steps further by teaming up with communities to

conduct research and implement projects specifically designed to address problems plaguing disadvantaged neighborhoods. The following projects are a few notable examples of the laboratory's efforts to put science to work for communities striving to build healthy and safe neighborhoods.

**Lead Safe Yard Project - Technical Transfer** - EPA New England scientists conducted a multi-year study to investigate low cost methods to mitigate the risk of lead contamination in residential soils. EPA assisted approximately 100 homeowners in inner city Boston during the pilot project. To transfer the knowledge and methods developed during the study to additional homeowners and community organizers, EPA staff published a project handbook, delivered presentations and published a study report *Lead Safe Yards: A Program for Improving Health in Urban Neighborhoods*. In 2006, the American Public Health Association recognized EPA New England and its partners for the development of this exemplary public health program.

**Study of Metals in Ayurvedic Herbal Medicines** - EPA New England participated in a groundbreaking study, published in the *Journal of the American Medical Association*, that found that one in five of the Ayurvedic herbal medicine products produced available in Boston South Asian grocery stores contained potentially harmful levels of mercury, lead, and/or arsenic. This study sparked great interest around the world, leading to an import ban in Canada and stricter enforcement of content and labeling laws in India. The research team recently published a second study finding similar results in Ayurvedic products purchased over the Internet.

**Contamination in Community Gardens** - The regional laboratory has also worked with academics and community organizations to identify chemical hazards in inner city community vegetable gardens. In one effort, the laboratory provided analytical support to map the spatial distribution of polycyclic aromatic hydrocarbons (PAHs) and toxic metals (arsenic, chromium, and copper) that have leached from timbers used in the gardens. This information on spatial distribution of contaminants allows the development of replicable strategies for the removal and replacement of contaminated soils in gardens with such timbers. The work of EPA's chemists to support this project was recognized in an award given by the Boston Natural Areas Network.

## **SITE CLEANUP AND REVITALIZATION**

The Superfund, RCRA/ UST, and Oil spill cleanup programs have made a great deal of progress over the last eight years in cleaning up sites and spills to protect human health and the environment while also refocusing the programs to better work with local communities and property owners to foster site reuse and redevelopment.

### **Removal/Oil Accomplishments**

The Removal Program addressed 125 hazardous waste sites using Superfund dollars, compelled another 23 sites to be addressed by Responsible Parties through enforcement orders, and responded to approximately two hundred oil and hazardous materials emergency responses (ERs). Many of the ERs involved air monitoring or giving technical support to the states and local responders.

The Removal Program also overhauled the oil spill program to better target facilities that have had previous spills and/or inadequately managed facilities, establish closer ties with our state counterparts, and provide a more defined compliance process for the regulated community. With the US Coast Guard and states, a highly successful unannounced exercise program was initiated to test major oil storage facilities' ability to respond to releases from their facilities. Outreach to the states and regulated community grew substantially, resulting in closer collaboration and greater facility compliance. The Region's new approach has worked so well it is being used as a model to develop a national approach. Some of the more noteworthy responses/removal actions in this period were:

**Elizabeth Mine, Strafford, VT (2003)** – prevented erosion of mine tailings in conjunction with the remedial program to avoid catastrophic slope failure and protect the lives of nearby residents.

**InterRoyal Site, Plainfield, CT (2005)** – provided ER to a major fire at an old factory and then cleaned up the facility property and an asbestos fallout plume five miles long through the adjacent neighborhood.

**Danversport Explosion Site, Danversport, MA (2006)** – provided ER to a major chemical explosion in a residential neighborhood, followed by a tank and drum removal, and a large scale site cleanup.

**Danbury Anthrax, CT (2007)** – responded to a private residence contaminated by animal skins which attained national interest because it involved resolving significant technical and contractual hurdles to decontaminate the house and adjacent shed.

## **Superfund Remedial Program**

The Remedial Program, including Federal Facilities, achieved the longstanding construction completion milestone at an additional 23 sites, bringing the total of completed sites to 69, out of a universe of 115 sites. Over \$330 million dollars were spent on Superfund construction at private sites. Great progress was also made in attaining the two environmental indicators (EI), Human Exposure Under Control (HE) and Migration of Contaminated Ground Water Under Control (GM), developed in 2001 to measure the progress in protecting human health and to returning ground waters to its beneficial use. To date human exposure is controlled at 90 (of 115) NPL sites and groundwater migration is under control at 70 (of 110) NPL sites. Below are some notable site highlights:

**Eastland Woolen Mill Site** - EPA New England responded to the contamination at the former Eastland Woolen Mill that threatened the economic viability and health of the residents of Corinna, Maine by implementing a decade long series of major response actions that have dramatically reduced the environmental contamination and facilitated the re-use of the former mill site. In 2006, a 20 unit senior housing project was opened for business on the back portion of the site and an important historic structure that was relocated during the cleanup in order to preserve it was re-opened as a general store and restaurant. In 2007, a war memorial was installed on another portion of the site. A grandstand to host public concerts and other events was also installed at the site in 2007. The cleanup has also resulted in a portion of the site being subdivided to create several lots that are currently marketed by the town of Corinna for re-use. EPA continues to work with the community as it implements the groundwater cleanup action.

**GE Housatonic River Cleanup** - A major milestone was reached in 2006 with the substantial completion of an \$85 million cleanup of PCB contamination in the 1 ½ mile reach of the Housatonic River begun four years earlier. The massive cleanup was performed by EPA pursuant to a cost sharing agreement with GE and followed GE's own cleanup of the first half mile. Elsewhere on the site, GE has substantially completed the cleanup of 13 of the 20 separate soil cleanup actions. In 2005, GE transferred 26 acres to the Pittsfield Economic Development Agency (PEDA) for redevelopment; an additional 26 acres are scheduled to be transferred to PEDA within three years. PEDA's planning to redevelop the site into the William Stanley Business Park is ongoing; infrastructure improvement work is already underway. GE, EPA, and the state continue to work together on the study of the "rest of river" portion of the site and are moving towards a final cleanup plan for this portion of the Housatonic River.

**New Bedford Harbor Site** - The New Bedford Harbor Superfund site has made significant progress over the past 8 years in this massive dredging project to clean up the highly contaminated harbor. A number of projects were completed, including the

submerged high voltage cable corridor, the removal of derelict fishing vessels required to relocate a marine barge operation, the dredging of PCB-contaminated sediments from the derelict vessel/relocation area, the relocation or removal of combined sewer overflows (CSOs), and numerous other shoreline business relocations. In 2004, a major milestone was achieved with the construction of the dewatering facility and a connecting rail spur to the adjacent City rail yard, allowing full scale dredging to begin. The remediation of seven acres, including the entire Acushnet River north of the Wood Street bridge was completed, the stream banks restored, and the salt marsh reestablished. In 2005, 19 acres of lower level PCB-contaminated sediments near the Cornell-Dubilier facility were capped, using clean sand and gravel from the “bottom” of the port’s CAD cell #1. Full scale dredging, dewatering and offsite disposal has continued every year.

**Massachusetts Military Reservation (MMR)** - The MMR is made up of two major military bases, Otis Air Force Base and Camp Edwards. EPA utilizes both Superfund and the Safe Drinking Water Act to ensure that cleanups continue to move forward. Significant progress on this complex cleanup project involving 94 sites and 23 groundwater plumes has been made. Currently, over 18 million gallons of groundwater are being pumped and treated at MMR each day. Many of the original sources of the groundwater plumes have been removed. As a result, EPA was able to delete 62 sites totaling over 500 acres from the National Priorities List in 2007. Innovative technologies and ideas have been recently implemented at MMR with much success, particularly on the “impact area” part of the project. Examples include the safe detection and removal of UXO using robotic technologies, the implementation of state-of-the-art bullet trap technologies for environmental friendly small arms training, and the use of wind power to reduce the environmental footprint and cost of the massive groundwater pump and treat systems.

### **RCRA Corrective Action Accomplishments**

The RCRA Corrective Action Program oversaw significant cleanup and reuse accomplishments at former and current RCRA treatment, storage, and disposal facilities. Through the end of FY2008, the environmental indicator, Human Exposures Under Control, was achieved at 180 of 190 RCRA corrective action facilities, and the environmental indicator, Migration of Contaminated Ground Water Under Control, was achieved at 153 of the 190 facilities in Region 1. In addition, a construction completion milestone was achieved at 45 of the 190 RCRA Corrective Action facilities in New England.

### **Brownfields Program Accomplishments**

For its size, year after year, EPA New England has outpaced all other regions in securing Brownfields grants that are provided to communities for use turning blighted

properties into revitalized assets. For example in 2008, EPA New England received a total of \$10 million of the \$74 million dollars awarded nationwide -- a tribute to the hard work and success in reaching out to communities throughout New England. The regional Brownfields program has developed nationally-recognized innovative training to help communities efficiently and cost effectively develop Quality Assurance Project Plans for site work. This program was so successful that in just a few short months the region has seen a dramatic increase in quality of these plans which has resulted in a shortened review process -- saving time and money. This program was recognized during the 2008 National Notable Achievement Awards Ceremony. Successful efforts to help rural communities have been particularly noteworthy by providing outreach to regional planning commissions, councils of government, and non-profit organizations. These efforts have resulted in EPA New England funding the most regional agency organizations in the country and distributing the most nonprofit cleanup grants in the country. For instance, from 2001 - 2008 EPA New England provided over \$12 million in funding to all eleven regional planning commissions in Vermont, as well as funding directly to the state to support state programs resulting in access to every town and village in Vermont for assessment funding. Similar success providing grants to Maine's assessment and cleanup program has enabled the State of Maine to accomplish 9 cleanups and 49 assessments in rural areas of Maine since FY03. Since 2001, EPA has awarded over \$129,000,000 to our states, communities, non-profits and other stakeholders for assessment and cleanup activities.

We also work with applicants that do not get selected in the national competition. Our Brownfields staff offer one-on-one debriefings for unsuccessful applicants to review areas for improvement in their grant applications. For example, in 2004, staff worked with officials from Durham, New Hampshire to review weaknesses in their proposal for the former Craig Supply site cleanup. They applied again in 2005 and were selected for a cleanup grant. They also applied in 2008 for a neighboring parcel and received the cleanup funding. In 2007, the City of Wrentham, MA applied for a cleanup grant for the Marra property, but they were not selected. Section staff worked with them to identify the weaknesses in their proposal; they applied again in 2008 and received the cleanup grant. These types successes demonstrate the dedication and follow through necessary to ensure that losing applicants move toward successful cleanup and redevelopment of properties that are important to their communities.

A number of successful projects throughout the region have included housing (Taunton on the River, Burlington's Riverfront Apartments, and Boston's Hope Project), office space (Lewiston and Westbrook, Maine), public space (parks in Norwich and Henniker), school buildings (Head Start in Somerville, Gardner library, Save the Bay in Rhode Island) and transportation projects (Brattleboro), to name just a few. Over 6,000 jobs have been created and \$690,000,000 dollars have been leveraged.