NEIWPCC 2010

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Vice-Chair: Peter LaFlamme, Vermont
Treasurer: Richard Kotelly, Massachusetts

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J. Robert Galvin, M.D., M.P.H., Commissioner, Department of Public Health
Represented by Ellen Blaschinski, Branch Chief, Regulatory Services
Arnie Bevins, Vernon
Astrid Hanzalek, Suffield
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Represented by Andrew Fisk, Director, Bureau of Land and Water Quality
Brenda Harvey, Commissioner, Department of Health and Human Services
Represented by Nancy Beardsley, Director, Drinking Water Program
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Albert Curran, P.E., Gorham
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Represented by Rick Dunn, Director, Division of Watershed Management
John Auerbach, Commissioner, Department of Public Health
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Represented by Harry Stewart, P.E., Director, Water Division
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Nelson Thibault, P.E., Nottingham

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*As of September 30, 2010
I am sure many of you remember the elementary school science lesson where the teacher explained that while each of us is made of skin and bones, the human body is actually 60 percent water. I think the point of this lesson was to make us think differently about ourselves and the world around us. Having been privileged to work with NEIWPCC and my fellow water directors from New York and New England for the last seven years, I realize that water quality work is a lot like that elementary school lesson. Viewed from the outside, the work appears to be all about effluent concentrations, bond obligation notes, activated sludge, indices of biological integrity, and the like. But the reality is that water quality work is actually 95 percent people.

I am constantly inspired by the men and women who I meet and work with everyday to achieve the ambitious goals of the Clean Water Act and our state environmental quality laws. Sure, sometimes some of these folks holler and complain about our work. But that means that what we do is important and makes a difference to people. Imagine a day when the public didn’t care enough to tell us what they thought about our region’s quality of life.

The work we have all accomplished over the decades is a testament to the value of setting ambitious goals and challenging ourselves to be in it for the long haul. NEIWPCC has been on the job for more than 60 years, and the finish line still hasn’t been crossed. We still have to figure out the best way to allocate our water resources, develop our watersheds to have both quality buildings and quality streams, adapt to a changing climate, keep our infrastructure humming, as well as close the loop on how we consume.

On certain days, that feels like a very daunting list, especially given the continuing tough economic times we continue to weather. Budgets are not likely to improve in the near future and in many state programs there are too many tasks and too many vacant seats. But on most days the dedication and perseverance of the people in our line of work remind me that the English poet Robert Browning was onto something when he wrote that having your reach beyond your grasp is a good thing.

Please remember as you read this year’s annual report how fortunate we are to have an organization like NEIWPCC to bring our region together as we work to improve our quality of life in the Northeast.

Thank you for another good year,

Andrew Fisk
NEIWPCC Chair 2010
Bureau Director, Land and Water Quality, Maine Department of Environmental Protection 2003-2011
On April 22, 2010, the nation marked the 40th anniversary of Earth Day, the event that in 1970 pushed environmental concerns to the forefront of America’s consciousness and that is now celebrated annually by hundreds of millions of people around the world. The 2010 celebration featured countless rallies, large and small, where speakers addressed impassioned crowds. The speakers included NEIWPCC Executive Director Ron Poltak, who addressed university students at events in Maine and Massachusetts. Like just about every other speaker that day, Ron talked about how far we have come on environmental protection and how far we still have to go.

Certainly, there are many reasons to be encouraged. The days of cities routinely dumping raw sewage into water bodies are long behind us. Laws and regulations exist to protect the nation’s waters, most of which flow far cleaner and clearer than 40 years ago. Venture not too far off the beaten path in America and you can still find scenes like the one on this page—a seemingly pristine river racing through picturesque wilderness.

But probe deeper, and the concerns are real and profound. The river seen here, the Ausable, flows out of the Adirondacks, running swiftly and unsullied through New York State’s famed Ausable Chasm. But further downstream, as the river winds to Lake Champlain, its waters face many of the same environmental stressors, including polluted stormwater and agricultural runoff, faced by rivers everywhere. And those laws and regulations that protect our waters? In some cases they are woefully out of date. Even the discharge of raw sewage still occurs at a frequency that causes multiple beach closings on America’s coastlines every summer. By one measure, the state of the nation’s aquatic ecosystems is actually declining: The rate at which waters are being newly listed for water quality impairments exceeds the pace at which restored waters are being removed from the list.

In this annual report, we cover NEIWPCC’s efforts to address these and many other concerns during our 2010 fiscal year, which began on Oct. 1, 2009, and ended on Sept. 30, 2010. Since 1947, NEIWPCC has been a leader in the fight for clean water. As a not-for-profit interstate agency, we serve and assist our member states—Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont—by coordinating activities and forums that encourage cooperation among the states, developing resources that foster progress on water issues, representing the region in matters of federal policy, training environmental professionals, initiating and overseeing scientific research projects, educating the public, and providing overall leadership in water management and protection.

According to our Compact, NEIWPCC is to be overseen by 35 Commissioners—five from each member state—who are appointed by their state governors. However, the number of NEIWPCC Commissioners from each state can vary slightly from year to year due to the gubernatorial appointment process. NEIWPCC staff, under the direction of Ron Poltak and Deputy Director Susan Sullivan, develop and carry out programs endorsed by the Commissioners.
Coordination and Collaboration

Since the formation of NEIWPCC more than 60 years ago, the men and women who serve as our Commissioners have been convening on a regular basis to discuss issues, identify needs, coordinate actions, work together, and guide the Commission’s programs and projects. Who are these Commissioners who hold such influence? According to the Act of Congress that created NEIWPCC in 1947, each member state’s five-person delegation must include the leaders of its environmental and public health agencies, who typically designate representatives to attend NEIWPCC meetings on their behalf. A state’s remaining three seats go to individuals appointed to the Commission due to their experience and interest in water and wastewater issues.

In fiscal 2010, this distinguished group gathered as a full Commission three times: January 14-15, 2010, in NEIWPCC’s main offices in Lowell, Mass.; May 20-21, 2010, in Lenox, Mass.; and September 9-10, 2010, in Westbrook, Conn. We also convened six meetings during the year of our Executive Committee, made up of the states’ environmental agency commissioners or their representatives. At each of these meetings, the proceedings ran smoothly despite the many faces at the table (and many opinions), with the Commissioners engaging in a steady stream of spirited exchanges on a profusion of topics. NEIWPCC’s most able 2010 chair, Andrew Fisk, the representative of Maine DEP’s commissioner, performed superbly in keeping the discussions focused and productive.

In fact, if there was one criticism of the 2010 meetings, it was one that was also a compliment—with so much to discuss, the meetings never seemed to last quite long enough. This points to the crucial need for the meetings. The sharing of information, the communication, the learning that occurs—all of it is invaluable as the states work through complex, multifaceted water and wastewater issues. The gatherings provide the ideal setting for coordination and collaboration among the states, who share so many of the same concerns.

Signs of the Times

At every NEIWPCC Commission or Executive Committee meeting, a regular feature is the trip around the table to allow each state to update the others on issues of interest to the group, particularly water-related legislation and budget matters.

And during this year’s meetings, the news on state budgets was seldom good. At the December 11, 2009, Executive Committee meeting in Lowell, the state budget picture was grim regionwide, with Connecticut, for example, projecting a deficit of as much as $600 million for the fiscal year. Other states reported agreements for state employees to take numerous unpaid furlough days. At the July Executive Committee meeting, Glenn Haas of MassDEP said the agency was operating at a historic low in staffing with 130 fewer employees than 2009, due to layoffs and retired staff who were not replaced. Haas said programs were being streamlined as a result, and he urged the EPA participants at the meeting to hasten federal grant funding; EPA’s Stephen Perkins said he would help in any way he could.

As the year went on, the budget outlooks for NEIWPCC’s member states remained bleak, with very real consequences for environmental protection. As a case in point, NEIWPCC sought funding from all our member states to support a regional fish tissue monitoring program as part of our reassessment of the Northeast Regional Mercury TMDL. But due to budget constraints, only Massachusetts was able to provide any money for the monitoring, and that came about via a competitive grant process. (See page 13 for more details on the TMDL and fish monitoring.)

On the federal budget, the outlook was somewhat brighter, at least initially. Early in the year, NEIWPCC Executive Director Ron Poltak—in his role as co-chair of the Association of State and Interstate Water Pollution Control Administrators’ Funding Task Force—met in Washington with White House Office of Management and Budget staff to discuss federal funding for water programs.
The meeting successfully increased OMB’s awareness of NEIWPCC and our states’ issues, and the need for increased support. And at the December 2009 Executive Committee meeting, Ron discussed the impact to the states of the new fiscal 2010 appropriations of $2.1 billion to the Clean Water State Revolving Fund (CWSRF), through which states can receive low-interest loans for wastewater projects, and $1.4 billion for the Drinking Water State Revolving Fund (DWSRF), which provides low-interest loans for drinking water projects. Ron also reported an $11 million increase in Clean Water Act Section 106 funds, which support the water pollution control programs of states, tribes, and interstate agencies, including NEIWPCC. During the year, states and towns across the region also benefitted from the American Recovery and Reinvestment Act of 2009, as water and wastewater projects long on the back-burner were completed thanks to the stimulus funds.

Later in the year, however, the outlook for federal monies clouded, with the Obama administration planning a five percent across-the-board reduction in spending on federal programs, and lawmakers settling into a protracted battle over the federal budget that would last deep into 2011. It also became clear that talks in Washington about a clean water trust fund supported by fees on bottled water and other products impacting water and wastewater systems (an idea long supported by NEIWPCC) were not likely to lead to any result for several years. But at the Commission meetings, the resolve of the participants was tangible—the states’ water programs continue to do extraordinary work with the monies they have, while hoping the sluggish economic recovery eventually yields the greater financial support they need.

Information Exchange
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One topic that came up at virtually every fiscal 2010 meeting was the movement in Washington toward modernizing the Clean Water Act of 1972. By setting national goals and objectives, establishing technology-based and water quality-based standards, funding grant programs including those targeted at wastewater facilities and research, and creating an administrative and enforcement structure, the CWA enabled the nation to address the pollution that had threatened to destroy our waters. But as Ron Poltak wrote in the Winter 2010 edition of NEIWPCC’s Interstate Water Report, the CWA is simply no longer achieving water quality improvements as initially intended. Not all point source discharges have been controlled properly—enforcement is difficult, limited by resources and sometimes politics—and pollution from nonpoint sources remains significant and in many cases subject to weak non-enforceable controls. Early in the year, a subdued optimism prevailed in the Commission and Executive Committee meetings about the prospects for implementing and enforcing EPA’s approach to achieving sustainable communities. Ron’s “thematic area assignment” was Sustainable Communities, where he engaged in discussions with other authorities such as William Reilly, former U.S. EPA Administrator; Ken Kirk, executive director of the National Association of Clean Water Agencies; and Steven Stockton, director of civil works at the U.S. Army Corps of Engineers. In comments after the meeting, Ron said agricultural industry representatives admitted during the forum that nonpoint source pollution is a problem the industry must address—no small admission where clean water is concerned.

The discussions provided EPA with critical input as the agency prepared its draft strategy for achieving clean water, which was released in August 2010. The strategy calls for EPA to improve and adapt regulations, permitting, and enforcement efforts as a key first step, and to improve the assessment and classification of waters. In September, NEIWPCC sent a letter to EPA commenting on the draft on behalf of our member states. While expressing support for EPA’s efforts, we voiced a general concern that the strategy included little recognition of the role that state and interstate partners play as co-regulators of the Clean Water Act, and that there needs to be a greater focus on mercury and on getting water and air programs to work together. As of the writing of this annual report, EPA had yet to release a final report on its strategy for pursuing the nation’s clean water goals. Environmental Conservation discussed the strong negative response from municipalities to a draft permit requiring stream flow restoration plans for stormwater TMDLs within three years and implementation of stormwater best management practices to meet those plans within ten years. (For more on TMDLs, see page 15.) At the same meeting, Paul Stacey of Connecticut’s Department of Environmental Protection talked about his state’s adaptation planning for the potential effects of climate change. Such discussions provide everyone in the room with unfiltered ideas and invaluable information—and the opportunity to receive and provide direct feedback. At the July Executive Committee meeting, EPA Region 1’s Roger Janson distributed the agency’s new “Interim Guidance to Strengthen Performance in National Pollutant Discharge Elimination System (NPDES) Permitting,” prompting a discussion of how EPA’s suggestions for permit and enforcement programs would affect the states.

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NEIWPCC Executive Director Ron Poltak was a member of a highly select group that attended U.S. EPA’s Coming Together for Clean Water Conference on April 15, 2010, in Washington, D.C. The forum brought together 120 environmental professionals from across the country (or “clean-water thought leaders,” as EPA called them) to discuss and explore opportunities for reinvigorating EPA’s approaches to achieving clean water in America. Ron’s “thematic area assignment” was Sustainable Communities, where he engaged in discussions with other authorities such as William Reilly, former U.S. EPA Administrator; Ken Kirk, executive director of the National Association of Clean Water Agencies; and Steven Stockton, director of civil works at the U.S. Army Corps of Engineers. In comments after the meeting, Ron said agricultural industry representatives admitted during the forum that nonpoint source pollution is a problem the industry must address—no small admission where clean water is concerned.

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for effectively reauthorizing or amending the act, but as the months went on, prospects dimmed. As Ron explained to the Commissioners, the all-consuming focus on health care reform derailed the momentum on the CWA, as did the concerns, which NEIWPCC shared, about plans to revise the CWA formula for state allocations of State Revolving Fund monies.

**Working Together**

Beyond the meetings at the Commissioner level, NEIWPCC staff coordinated numerous meetings during the year of our regional workgroups, which bring together representatives from the Commission’s member states and federal agencies (primarily EPA). Some workgroups are program-specific; others are ad hoc groups formed for a project. In fiscal 2010, members of the program-specific workgroups generally met in-person or via conference call 2-3 times during the year. NEIWPCC staff coordinated every aspect of the sessions, where talks occurred that often provided the impetus for work undertaken by the Commission on behalf of our states. NEIWPCC conducts workgroups in water quality standards, TMDLs, monitoring and assessment, mercury-fish, nonpoint source pollution, stormwater, wetlands, drinking water, groundwater and source water protection, underground storage tanks, pharmaceuticals and personal care products, climate change, operator training and technical assistance, residuals, and onsite wastewater treatment. Details on the 2010 activities of each of these workgroups can be found in their respective sections later in this report.

At NEIWPCC, however, the concept of working together with our member states goes beyond gatherings. Each year, we send many influential letters to Washington on our member states’ behalf, commenting on proposed federal policy and strategy. These letters to elected officials and federal agencies are carefully crafted to accurately represent the region’s views; the text and tone of each letter is developed by Commission staff in close consultation with our Executive Committee and staff in our states. The result is a clear, concise regional message that is far more powerful than separate communications from each state. In fiscal 2010, we sent comment letters on many issues, including EPA’s proposed water quality standards for Florida’s lakes and flowing waters (see

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**Learning Opportunity**

NEIWPCC’s belief in the value of frequent and focused communication is also expressed internally. Lowell staff convene regularly for meetings where projects are discussed, plans shared, and presentations delivered. Special guests also visit on occasion to share their expertise. On July 7, 2010, Stephen Lehmann (far left), a scientific support coordinator for the National Oceanic and Atmospheric Administration’s Emergency Response Division, spoke with staff about the Deepwater Horizon oil spill in the Gulf of Mexico. Lehmann talked about what he saw during his frequent helicopter flights to the site of the disaster. “When you fly over it, it’s hard not to be impressed by how much oil is out there and how much response equipment is out there,” he said. “It looks like the Spanish Armada. It looks like what Normandy must have looked like.” Regarding the use of subsea dispersants, Lehmann said that, to NOAA, the pros outweighed the cons. “We’re constantly weighing tradeoffs,” he said. “In this business, you’re seldom weighing good against bad. You’re weighing bad against less bad.”
YEAR OF ACHIEVEMENT

Fiscal 2010 was also notable for the sheer number of major projects completed by NEIWPCC staff, all of which are described in detail in the following sections of this report. To cite just a few highlights:

- After years of collaborating with multiple partners on the New England Lakes and Ponds study, NEIWPCC coordinated the publication of the study’s results in a comprehensive, highly readable final report. The report describes what was discovered about the water quality and ecological conditions in the region’s lakes and ponds as well as what was learned about innovative assessment techniques (see page 10).

- NEIWPCC’s leadership in petitioning EPA to hold a conference on reducing mercury pollution in the Northeast culminated with the convening of the conference on June 22-23, 2010, in Philadelphia, with 18 states and EPA participating. After the conference, NEIWPCC worked with in-region and out-of-region states to outline priorities for EPA action on an aggressive strategy to control mercury nationwide (page 12).

- Amid the continual necessity to address the training needs of the region’s wastewater treatment plant operators, NEIWPCC’s training program offered more than 100 courses throughout our member states. We also launched much praised management training programs for operators in Massachusetts (page 21) and, through JETCC, in Maine (page 23).

- An intensive development process got underway as NEIWPCC staff, working with wastewater experts from across the region, began creating a new edition of TR-16 Guides for the Design of Wastewater Treatment Works. Still one of NEIWPCC’s most requested technical guides, TR-16 was last updated in 1998 (page 24).

- NEIWPCC led the development and coordination of the highly successful National Tanks Conference in Boston, Sept. 20-22, 2010. The more than 750 people who attended—an increase of 50 percent over the year before—experienced a rich agenda of some 40 sessions covering virtually every challenge faced by the underground storage tanks community (page 28).

- Staff from all seven member states and EPA attended a NEIWPCC workshop in Chelmsford, Mass., that examined in-depth the issues surrounding cyanobacteria, a growing concern in our region. The session raised awareness of what we know about cyanobacteria, sometimes called blue-green algae, and what needs to be done to detect and prevent toxic blooms (page 33).

- An extensive special report in NEIWPCC’s newsletter Interstate Water Report explored the world of winter road maintenance, revealing the environmental and public health concerns associated with the use of road salt—and the impressive work underway in the region to analyze salt’s impact and reduce its usage (page 35).
Rewarding Relationships

Building, maintaining, and strengthening relationships with government agencies and other organizations is a constant process at NEIWPCC; the challenges in the water realm require as broad an attack as possible, ideally with each entity bringing its own brand of expertise to a coordinated front line. Of paramount importance is NEIWPCC’s relationship with the Environmental Protection Agency, which underwent a transformation in 2010 as President Obama named new regional administrators to oversee the agency’s work in our member states. Judith Enck was appointed administrator of EPA’s Region 2, of which New York is a part, and in Region 1 (New England), Curt Spalding, the longtime executive director of Save the Bay in Rhode Island, took the reins. Given Spalding’s strong familiarity with water issues, his appointment bodes well for a continuation of EPA’s strong support for NEIWPCC. In early 2010, Ron Poltak and Susan Sullivan met with Spalding as well as with senior EPA managers in Washington. It was clear from the meetings that the agency remains keenly appreciative of the necessity of working closely with the Commission and of maintaining the robust relationship that has served our member states so well over the years.

NEIWPCC’s ties with the Association of State and Interstate Water Pollution Control Administrators also remained firm in 2010 as that organization continued its impressive return to form after a period of instability. ASIWPCA provides a powerful means of augmenting NEIWPCC’s and our states’ efforts to represent our region’s interests at the national level; hence the participation with ASIWPCA is extensive. In 2010, NEIWPCC Chair Andrew Fisk served as ASIWPCA’s president, with our Vice-Chair Peter LaFlamme serving as Region 1 representative. LaFlamme also co-chaired ASIWPCA’s Permitting and Compliance Task Force, while NEIWPCC’s Poltak and Beth Card co-chaired the Funding Task Force and Legal Affairs Task Force respectively.

NEIWPCC maintains equally important relationships with a wide range of other organizations, including our sister interstate agencies, the Northeast...
In November 2009, NEIWPCC published for each of our member states a summary of some of the key NEIWPCC efforts underway in the region and in that particular state. These summaries were by no means comprehensive—far from it—but they did capture the diversity of our services to each state and the positive results generated. The summaries were sent to the leaders of the environmental agencies in our member states and our other Commissioners as a means of illustrating the enormous benefits each state gleaned from the modest dues paid to be part of NEIWPCC.

The 2009 state summaries, as well as an updated series of summaries published in December 2010, are available at www.neiwpcc.org/statesummaries.asp.
The NEIWPCC staff who work on water quality programs and projects are an enterprising group, but it is not every year that we see so many major efforts come to fruition. One of those achievements came in the area of water quality standards and monitoring, as the multiyear, multi-organizational undertaking known as the New England Lakes and Ponds (NELP) study culminated with the publication of a detailed, highly descriptive final report. NEIWPCC’s Kerry Strout coordinated the development of the publication, which summarizes the results obtained from many years of field sampling and data analysis. Conducted in conjunction with EPA’s National Lakes Assessment, the NELP study began in 2006 when NEIWPCC, the EPA New England Regional Laboratory, state environmental agencies, and universities began collaborating to evaluate water quality and ecological conditions in lakes and ponds across New England. By the time the work was complete in late 2009, a clear picture had emerged of the waterbodies’ health—and as the final report shows, the picture is mostly encouraging. Based on numerous biological, chemical, physical, and recreational indicators, New England’s lakes compare favorably to lakes in other regions, though the findings highlight the need to continue to pursue vigorous environmental protection strategies.

In addition to detailed research results, the report includes a description of the many innovative lake management assessment tools and technologies developed and tested as part of the NELP study. To download the report in its entirety, visit www.neiwpcc.org/waterquality/nelp.asp. A comprehensive description of the project is also available on EPA’s NELP web section (www.epa.gov/region1/lab/nelp.html).

**TALU Pilot Project**

While the NELP study was ending, another much-anticipated effort was officially getting underway. The Tiered Aquatic Life Use Managers’ Pilot Project was formally launched in fiscal 2010 with a

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**GOOD GRADES** The visually striking NELP report contains numerous charts illustrating the findings of the research. The figure at right shows the percentage of lakes in good condition in New England and the nation, as measured by survey indicators.

**PERCENT OF LAKES IN GOOD CONDITION**
NEIWPCC-coordinated workshop in Chelmsford, Mass., but in fact the project had been in the works for some time. In 2008, NEIWPCC began working with several partners, including the Midwest Biodiversity Institute, on planning the project, which will demonstrate how TALU can be used to make management decisions regarding water bodies in our region. TALU is a new assessment framework in which aquatic life use designations are assigned to water body segments based upon the potential to support different uses. The result is different levels of protection in different areas of a water body.

During the year, we closely tracked the project participants’ efforts to show TALU’s applicability in scenarios where a variety of things are taking place, such as urbanization, increasing chloride inputs, and human-caused changes in stream hydrogeomorphology. NEIWPCC also created a password-protected page on the monitoring section of our website to make key study summaries, TALU resources, and additional sensitive information accessible to approved federal and state staff.

THE NEWS ON NUTRIENTS

When EPA, in early 2010, published its proposed standards setting specific numeric limits on the amount of nutrient pollution allowed in Florida’s lakes, rivers, streams, and springs, the reaction in many parts of the country was one of deep concern. EPA’s action in Florida underscored the agency’s determination to require states to have numeric criteria for phosphorus and nitrogen, and to make compliance with these criteria a key factor in determining whether a waterbody is impaired. The reaction only intensified when EPA finalized the Florida criteria in November 2010, spurring a slew of lawsuits to put a stop to the limits before they become effective in early 2012.

As NEIWPCC wrote in a comment letter to EPA after the Florida limits were proposed, our member states agree with EPA that nutrient pollution is a problem that must be addressed. In fact, most of the states are already working toward establishing numeric nutrient criteria. But in contrast to the strict, one-size-fits-all limits imposed in Florida, our states prefer to rely more heavily on criteria for response indicators, such as chlorophyll-a, Secchi disk, and biological indices, which they feel are better indicators of a water body’s impairment status. The states are now working on approaches that will satisfy EPA’s requirements without resulting in a significant burden on state’s monitoring and TMDL programs. In the coming months, NEIWPCC’s Susy King, the coordinator of our Water Quality Standards Workgroup, will be actively working with our states on these efforts. In Rhode Island, we have gone a step further by supporting a staff member at DEM, Jane Sawyers, who is helping to develop numeric nutrient criteria for that state’s lakes, ponds, rivers, and streams.

Not all the NEIWPCC news on nutrients, however, was focused on criteria. Our other work in this arena included research by NEIWPCC’s Clair Ryan into our states’ different approaches to limiting the nutrient content of residential fertilizers and household detergents; our Commissioners expressed great appreciation for her findings at the January 2010 Commission meeting. In a related action, NEIWPCC’s Theresa Ludanyi, who works with New York State DEC’s Division of Water, assisted with outreach related to New York’s new ban on the sale of phosphorus-containing dishwasher detergents and new limits on the use of phosphorus fertilizers. For those who question whether such actions have any actual impact on behavior by consumers and industry, consider this: In March 2011, Scotts announced that as of 2012, all its lawn fertilizer products will be phosphorus-free.

Messages to Washington

This year’s meetings of NEIWPCC’s Water Quality Standards Workgroup focused on a multitude of issues, including the TALU project and the numerous court battles being waged over measures taken by states to prevent degradation of water quality through antidegradation provisions—the third and final step in the water quality standards process defined by the Clean Water Act. (The first two steps being to designate how a water body is used (e.g., for providing drinking water) and to set criteria necessary to protect those uses.) The discussions of the workgroup also provided valuable input to NEIWPCC as we developed three standards-related comment letters to send to EPA on behalf of our member states.

In March 2010, NEIWPCC submitted our concerns about EPA’s draft of revised numeric criteria for determining whether a water body contains more ammonia than it can tolerate and still meet the water quality standards for its designated uses. As we wrote, our states have concerns with how EPA developed the criteria and how the criteria would be implemented. The proposed criteria are about four times more stringent than existing criteria, and that could have significant...
In April 2010, we informed EPA of our states’ serious concerns regarding the agency’s proposed nutrient criteria for Florida’s lakes and flowing waters (see previous page for details), and in October 2010, we commented on EPA’s announcement that it plans to formally revise the water quality standards regulations. Our letter to the agency expressed concerns about any new requirements for antidegradation, designated uses, and triennial reviews. We urged EPA to develop the revised rule in a collaborative process that gives states ample opportunity for input. The draft standards rule is expected to be released in the summer of 2011.

**Mercury**

Awareness of the problem of atmospheric deposition of mercury is not new: EPA declared as far back as 2000 that mercury emissions from power plants pose “significant hazards to public health” and must be reduced. But trying to solve the problem has been an arduous challenge. In the past few years, significant progress has been made—with NEIWPCC playing a leading role.

The work began years ago with NEIWPCC and our member states collaborating to control mercury pollution through Clean Water Act tools. In 2007, EPA approved the Northeast Regional Mercury TMDL, a plan developed by NEIWPCC and the Northeast states to reduce mercury in our waters through reduction of atmospheric deposition (see page 15 for more on TMDLs). NEIWPCC and the states followed up on the TMDL with the first-ever CWA Section 319(g) petition to EPA in October 2008. Signed by all seven NEIWPCC states, the petition asked EPA to convene a conference involving the Northeast states plus the states named in the petition as significant contributors to mercury pollution in the Northeast. As EPA considered the petition, NEIWPCC and the states undertook extensive preparations for the conference, including developing a list of desired outcomes. This list was shared with EPA and the contributing states, reflecting our wish to meet not as adversaries but as collaborators.

In 2010, the hard work paid off. On June 22-23 in Philadelphia, EPA convened the nation’s first §319(g) management conference, with participation from all the Northeast states, all 11 of the contributing financial and technological impacts on wastewater treatment facilities.

LEGAL AUTHORITY  NEIWPCC and the Northeast states invoked Section 319(g), a never-before-used provision of the Clean Water Act, to compel EPA to hold a conference on reducing mercury pollution in our region. EPA convened the conference in June 2010 in Philadelphia.

INTERSTATES IN ACTION

When Massachusetts DEP wanted to know if the state’s wastewater and drinking water facilities had used stimulus funds to replace mercury-containing products with mercury-free alternatives, the agency contracted with NEIWPCC’s sister interstate agency, the Northeast Waste Management Officials’ Association, to conduct a study—and NEWMOA turned to NEIWPCC for help. Working together, NEIWPCC and NEWMOA staff conducted an online survey of facilities, and visited six plants. The visits revealed differences: One facility, for example, had multiple devices containing large amounts of mercury, while another’s inventory of mercury-containing products included only fluorescent lights, one of the few products that do not have a mercury-free alternative. During the visit to the Greater Lawrence Sanitary Sewer District facility in North Andover, Mass., the team took this photo, showing the plant’s use of ultrasonic water flow meters. The facility switched to the non-mercury meters to replace older flow meters that could contain as much as ten pounds of mercury each. At plants yet to make such a switch, the team pointed out the benefits of moving away from products containing mercury. The project provided valuable information to NEIWPCC, NEWMOA, and to MassDEP, which has committed to the virtual elimination of mercury emissions and discharges.
states named in the petition, and representatives of EPA headquarters and EPA Regions 1, 2, 3, 4, and 5. During the discussions, all the states expressed that they share the problem of widespread fish consumption advisories due to mercury, and have undertaken numerous mercury reduction activities. But due to mercury’s capacity to travel long distances via atmospheric currents, a state cannot solve its mercury problem by working alone; collaboration with EPA and other states is vital. As the conference ended, the participants agreed it was a positive experience and that the dialogue should continue, with NEIWPCC facilitating communication and follow-up activities.

In the ensuing months, NEIWPCC’s Beth Card and Susy King developed a letter to EPA Administrator Lisa Jackson that was sent in November 2010 and signed by our member states and five other states that took part in the conference. The letter requested EPA action on a range of recommendations, most notably the establishment of federal mercury standards for coal-fired power plants. In March 2011, shortly before the publication of this annual report, EPA formally proposed new mercury and air toxics standards that would require many power plants to install equipment to cut emissions of mercury and other airborne contaminants. A victory to be certain, but this issue has not been put to rest. NEIWPCC and the Northeast states are committed to seeing the process through and continuing to push for a strong federal commitment to mercury reduction.

Nonpoint Source Pollution

In contrast to the nation’s considerable success in controlling point sources of pollution, there remains much room for improvement with controlling the nonpoint source variety. As rainfall and snowmelt move over and through ground, the water picks up pollutants and carries them into lakes, rivers, and wetlands. And today, this NPS pollution has become the dominant cause of water pollution, dwarfing all other sources by volume.

NEIWPCC has long held that the Clean Water Act should be revised to give states enforceable federal regulatory support for controlling nonpoint sources, but in the absence of such revision, the states are on their own in setting program priorities—and that makes NEIWPCC’s efforts in this arena so critically important.

Since 1990, NEIWPCC has been coordinating the annual Nonpoint Source Pollution Conference with support from the NPS programs of the New England states, New York State, and EPA Regions 1 and 2. This tradition continued in 2010, as more than 130 conference registrants convened in Plymouth, Mass., on May 17 for three days of sharing information and improving communication on NPS issues and projects. Massachusetts DEP co-hosted the conference, which carried the theme “Nonpoint Source
Management in a Changing Climate.” Hence, many of the presentations addressed climate change adaptation issues related to NPS projects, but there was plenty of variety: The conference also highlighted important NPS case studies in Massachusetts, including management of septic system pollution on Cape Cod (see page 27 for more on this story) and the use of Low Impact Development in implementing the Charles River TMDL. Other presentations covered regionally and nationally important issues such as BMP design for volume reduction, GIS modeling and watershed recoverability assessment, and the potential for coal tar-based sealants to pollute stormwater with toxic polyaromatic hydrocarbons. Presentations from the Plymouth conference are available along with the presentations from all NPS conferences going back to 2007 in our online archive at www.neiwpcc.org/npsconference/npsArchives.asp.

Throughout the year, NEIWPCC also held regular meetings of our Nonpoint Source Pollution Workgroup, which as always was heavily involved in planning for the conference. In fact, not long after the events in Plymouth concluded, workgroup members turned their attention to the 2011 conference, which will take place in Saratoga Springs, N.Y. The 2011 theme is “NPS Management in a Lean, Green Scene,” drawing attention to the states’ desire to move towards more sustainable practices while facing the reality of state and municipal budget problems.

**Stormwater**

While the plentiful precipitation in NEIWPCC’s member states means water supply is not the pressing issue that it is in the West and Southwest, all the rain and snow means lots of stormwater—and the problems that come along with it. Polluted stormwater runoff continues to contaminate waters in the region, and for NEIWPCC and our states, more effective stormwater management is an absolute priority. We were encouraged in 2010 by EPA’s intentions to revise the federal stormwater program, but we were also aware of the importance of ensuring the revisions reflect our region’s concerns.

Working in conjunction with NEIWPCC’s Stormwater Workgroup and members of our Executive Committee, NEIWPCC staff wrote a letter to EPA in February 2010 that commented upon the proposed federal stormwater rulemaking. There was certainly plenty to write about: The new rules are expected to cover post-construction stormwater standards for new development and redevelopment, potentially alter the scope of the Municipal Separate Storm Sewer System (MS4) program, equalize permit requirements across the entire MS4 program (eliminating the differences between Phase I and Phase II communities), and alter expectations for stormwater permitting in watersheds with TMDLs in place. In our letter, we made a number of suggestions, including urging EPA to offer national guidance on residual designation authority. (RDA gives EPA or a state the ability to require NPDES permits for any otherwise unpermitted discharge composed wholly of stormwater if the discharge contributes to the impairment of a water body; several of our member states have faced RDA petitions filed by outside groups.) We also proposed that EPA consider new stormwater rules for discharges to high-quality waters, and we encouraged the agency to improve funding options for MS4s struggling with implementing stormwater requirements. With EPA’s first public draft of the new rules expected in September 2011, anticipation is building. RDA was a major point of discussion during 2010’s NEIWPCC Commission and Executive Committee meetings, and much attention will be focused on EPA’s actions on that topic in particular.

The federal rulemaking, however, was far from the only stormwater issue of concern during the year. In a joint session of NEIWPCC’s Stormwater and Groundwater/Source Water Protection Workgroups, the members discussed whether the current trend toward holding stormwater in depressions or swales that allow the water to infiltrate slowly into soil may actually be causing groundwater pollution. Using a set of tables created by NEIWPCC’s Clair Ryan, the meeting participants assessed each state’s regulations...
and guidance for protecting groundwater (especially drinking water sources) from inappropriate stormwater infiltration. At a separate meeting, the Stormwater Workgroup elected not to pursue a regional program for televised outreach on stormwater.

**Total Maximum Daily Loads**

Under the Clean Water Act, states are required to regularly assess their waters, and for those water bodies determined to be impaired, a Total Maximum Daily Load must be developed to deal with the problem. A TMDL specifies the maximum amount of a pollutant a water body can receive and still meet its water quality standards, and developing and implementing a TMDL is laborious, to say the least. For decades, NEIWPCC has assisted our states with challenging issues related to TMDLs, and this support was very much in evidence in 2010.

The meetings of our TMDL Workgroup, which brings together TMDL program staff from our states and EPA, covered a wide range of topics including large-scale bacteria TMDLs, TMDL indicators for measuring progress, and the implementation of stormwater-based TMDLs. One topic of particular note was ocean acidification, the ongoing decrease in the pH of the Earth’s oceans caused by their uptake of anthropogenic carbon dioxide from the atmosphere. The issue rose to prominence after the Center for Biological Diversity sent letters to six of our states requesting they list ocean waters as impaired for pH; EPA also solicited public comments on the effects of ocean acidification as it relates to the states’ impaired waters lists—usually referred to as 303(d) lists, after the section of the Clean Water Act that requires them.

With the workgroup’s input, NEIWPCC’s Susy King drafted a comment letter that we sent to EPA on behalf of our states in May 2010. The states agree that ocean acidification is a problem, but do not think the §303(d) approach is appropriate. As our letter made clear, listing waters as impaired for pH due to ocean acidification would require TMDLs for these waters. Yet our states do not have the expertise or resources to develop these TMDLs, and even if they did, individual TMDLs in each state would not be a solution because states do not have control over most of the emissions sources that contribute to the problem. Furthermore, none of the Northeast states are able to document impairments in ocean waters due to pH because of insufficient data, and our letter called on EPA to take the lead on this issue by filling existing data and knowledge gaps. Despite the validity of these points, EPA moved ahead with its plans, and later in the year issued guidance to states on how to address ocean acidification in their 303(d) lists, which must be submitted to EPA every two years.

**NEW APPROACH**

Throughout 2010, NEIWPCC continued to support the complicated revision of the TMDL for Long Island Sound, which suffers from an influx of nitrogen that has led to dangerously low dissolved oxygen levels in many areas, particularly the western portion (seen in photo). During the year, however, the TMDL revision process underwent a revision of its own. In the past, a LIS TMDL workgroup of staff from EPA, Connecticut, and New York, had been focused on the effort, with periodic input from the Upper Connecticut River Basin states (Massachusetts, New Hampshire, and Vermont). But in 2010, the group decided to formally include all the Sound’s watershed states in the process. On August 25, the environmental agency commissioners of all five states, the regional administrators of EPA Regions 1 and 2, the LIS TMDL workgroup, and NEIWPCC met to discuss the concept of a five-state TMDL. NEIWPCC worked closely with EPA to plan the meeting and prepare briefing materials.

During the meeting, all parties agreed to complete the revision of the LIS TMDL as a five-state effort. EPA subsequently developed a revision framework, which the new five-state/EPA/NEIWPCC workgroup approved at its first meeting in October. The framework emphasizes a number of points, including that the content of the revised TMDL will not be presupposed and that creative approaches to meeting water quality standards will be incorporated. Under the framework, the parties are moving ahead with the revision, which will be a priority for NEIWPCC for as long as the process takes.

**TMDLs and Stormwater**

Because stormwater can contain so many pollutants, combating it with a TMDL—which by definition targets a single pollutant—might seem nearly impossible. But not so in New England. The region has been leading the nation in establishment of so-called pollutant-surrogate TMDLs for stormwater, in which a surrogate such as flow or impervious cover functions...
as the pollutant in the TMDL. Such TMDLs have been approved in Maine, Connecticut, and Vermont, and the states are working to implement them in stormwater permits. To keep all our states up to date on this issue as well as the related RDA petitions mentioned on page 14, NEIWPCC coordinated conference calls during 2010 with the states and EPA so each state could more fully understand the approaches used in other states. Throughout the fiscal year, NEIWPCC staff also provided briefings to keep the Commission’s Executive Committee apprised, and in December 2010, NEIWPCC hosted an in-depth stormwater and TMDL managers workshop.

Wetlands

NEIWPCC’s work on wetlands encompassed a number of actions, including one especially successful one: On April 7, 2010, in Plymouth, Mass., we held our second Vulnerable Wetlands Forum, with support from EPA New England. Like the first version of the event in 2006, the forum focused on the latest science and policy on wetlands, and featured presentations and panel discussions on everything from regulation to outreach. More than 75 state, federal, municipal, and private sector representatives attended, and listened to presentations from state and EPA staff as well as noted wetlands experts Dr. Ray Semlitsch, University of Missouri-Columbia (keynote speaker); James Murphy, National Wildlife Federation; Ralph Tiner, U.S. Fish and Wildlife Service; Matt Burne, Vernal Pool Association; Brad Timm, University of Massachusetts-Amherst; and Alan Anacheka-Nasemann, U.S. Army Corps of Engineers. Presentations from the forum are available at www.neiwpcc.org/vulnerablewetlandsforum/2010.asp.

A number of the wetlands experts at the forum also play key roles in NEIWPCC’s Wetlands Workgroup, which convened periodically throughout the year. NEIWPCC’s Kerry Strout coordinated the discussions, which covered such topics as hydrogeomorphic-based wetland assessment techniques, EPA’s request for Wetland Project Plans, and the impact of diminishing state budgets. State wetland programs have not been immune to the budget woes affecting our member states, and with wetlands permitting down as a result of the sluggish environment for construction, the programs are coping with a decline in a key revenue stream.

NEBAWWG Alliance

NEIWPCC also continued our support of the New England Biological Assessment of Wetlands Workgroup (NEBAWWG), which brings together state and federal wetland managers and academic leaders.

IN DEMAND

The high-profile work done in recent years by NEIWPCC’s Water Quality staff has made them sought-after presenters at regional and national conferences. To cite just a few examples in 2010:

- Kerry Strout spoke about the Northeast Tiered Aquatic Life Use Managers’ Pilot Project at the National Water Quality Monitoring Council Meeting on April 26.
- At the Clean Water Act 319(g) Mercury Conference on June 22, Director of Water Quality Programs Beth Card and Susy King (left and right, respectively, in photo) delivered a presentation entitled “The Northeast Regional Mercury TMDL and the 319(g) Mercury Petition.”
- “The Long Island Sound TMDL: Revising and Engaging Upper Basin States” was the title of a presentation by King and Clair Ryan at the October 21 meeting of the Long Island Sound Study Management Committee.
scientists to collaborate on improving how we biologically evaluate the health of the region’s wetlands. This relationship is central to a key endeavor that officially launched in 2010: Supported by NEBAWWG funds from EPA, NEIWPCC is coordinating the development of the Northeast Regional Floristic Quality Assessment Index. In 2010, we contracted with nine botanists to begin evaluating wetland plants and give them a score based on the so-called Wilhelm method; these scores are being compiled into a list that will improve efforts to assess the quality of wetlands and help in evaluating restoration, mitigation, and management efforts. During the year, NEIWPCC’s Strout held several meetings on the project involving our technical advisory committee, which includes representatives from multiple partners including the Nature Conservancy. Although the project is far from complete, feedback has been very positive from state staff, who said repeatedly during the year that they are very pleased with the progress.

Considering the tight budgets in our member states, one other wetlands-related effort by NEIWPCC was keenly appreciated in 2010: Our reimbursement of travel expenses allowed state wetlands staff to attend national and regional gatherings held by NEBAWWG, the New England Association of Environmental Biologists, and the Association of State Wetland Managers.

Rhode Island Support
NEIWPCC staff continued to assist Rhode Island DEM and EPA New England with outreach efforts to promote better understanding of DEM’s wetland protection and restoration actions. Our staff’s activities have included producing a wetland restoration information kit for owners of land having potential for restoration or buffer enhancement, and helping to develop training for preventing compliance problems associated with Department of Transportation activities. NEIWPCC staff also helped implement regulatory reforms via facilitation of the 2000 wetlands task force report.

Water Quality Partnerships
NEIWPCC’s Water Quality staff in Lowell oversee a number of our most important partnerships, in which we provide a variety of services including employing staff who work directly with the partnering organizations. Only brief summaries of the groups’ 2010 activities are provided here; please visit the organizations’ websites to learn more about them and their programs.

Lake Champlain Basin Program
Fiscal 2010 marked the eighteenth year of NEIWPCC’s partnership with the LCBP, which coordinates and funds efforts to restore and protect the lake and its basin. NEIWPCC serves as program adviser and financial manager to the LCBP; Commission staff in Lowell manage personnel, contract, grant, and budget tasks for the LCBP, and provide input on its activities through our partnership with the LCBP Steering Committee. NEIWPCC staff at the LCBP develop and conduct its many water quality, education, and cultural heritage and recreation programs. Highlights of the LCBP’s activities in 2010 included extensive work on the development of the third version of Opportunities for Action: An Evolving Plan for Lake Champlain’s Future, which the LCBP unveiled at an international open house in November 2010; coordination of the “Lake Champlain Conference 2010: Our Lake, Our Future,” June 7-8, 2010; and organization of a workshop, “Getting Your Feet Wet with Social Marketing,” for Burlington-area watershed groups.

JOINING FORCES
At a ceremony in Burlington, Vt., on July 26, 2010, Beth Card, NEIWPCC’s director of water quality programs, officially endorsed a new memorandum of understanding that formalizes the commitment of NEIWPCC and the Lake Champlain Basin Program (LCBP), the Great Lakes Fishery Commission, and the U.S. Fish and Wildlife Service to work together on species and habitat restoration and water quality improvements in Lake Champlain. In the photo at left, U.S. Senator Patrick Leahy (left) and James Geiger, U.S. Fish and Wildlife Service, look on as Card signs the MOU. In her remarks at the ceremony, Card said, “Clean water and interstate coordination are NEIWPCC’s priorities, and that is why we are committed to efforts on Lake Champlain… The resources provided under this new agreement will afford us the opportunity to take on many new initiatives.” During the ceremony, it was announced that Senator Leahy’s efforts in Washington had helped procure a fresh infusion of nearly $13 million in federal monies for various Lake Champlain programs. Of this amount, the Great Lakes Fishery Commission received $6.5 million, nearly $4 million of which the GLFC provided to NEIWPCC to be managed by our staff in Lowell and at the LCBP. The new funds are supporting a variety of projects run by the LCBP, with $1.2 million alone going to its extensive grants program.

During the year, NEIWPCC also entered into an MOU with the State of Vermont and the New York State Attorney General’s Office for the purpose of using Lake Champlain Mitigation funds to award grants supporting environmental improvement projects on agricultural lands in the southern Lake Champlain watershed. The projects are focusing on reducing nonpoint source discharges of phosphorus while also benefitting agricultural operations.
discussions on habitat restoration, eelgrass, nitrogen pollution, and stormwater—all major issues faced by the estuary. The conference award luncheon honored those in the local community who have established themselves as leaders in protecting and restoring the Peconic Bay system.

New York-New Jersey Harbor Estuary Program
Since 2003, NEIWPCC has assisted the New York-New Jersey Harbor Estuary Program in its efforts to protect, conserve, and restore the estuary; NEIWPCC supports two staff positions at the program and manages grants and contracts related to TMDLs, habitat restoration, public access, stewardship, and outreach. In 2010, stewardship grants were awarded to Going Coastal, Kean University, and Rockaway Waterfront Alliance. Public access grants were awarded to Coney Island Brighton Beach Open Water Swimmers (CIBBOWS), Floating the Apple, Metropolitan

Long Island Sound Study
NEIWPCC assists Connecticut, New York, and EPA Regions 1 and 2 with efforts by the Long Island Sound Study, a multi-agency partnership, to increase public awareness of the value of the Sound and to improve its water quality. In fiscal 2010, NEIWPCC staff who work directly with LISS completed a number of key projects, including a complete redesign of the LISS website, one of the program’s most important outreach tools. NEIWPCC staff also participated extensively in updating the LISS indicators—ecological and socioeconomic datasets used to assess the overall health of the Sound.

Peconic Estuary Program
NEIWPCC staff based at the New York State DEC office in East Setauket help coordinate the PEP, spearheading vital water quality and habitat management efforts. In 2010, this included coordinating the Peconic Estuary Call to Action Conference on September 20 in Southampton, N.Y. The conference, which drew over 200 attendees, featured a keynote address by New York State Assemblyman Fred Thiele and panel
Waterfront Alliance, Regional Plan Association, Sebago Canoe Club, and Urban Divers Estuary Conservancy.

**WRITTEN COMMITMENT** At the Peconic Estuary Call to Action Conference on September 20, 2010, Shelter Island (N.Y.) Supervisor James Dougherty joins other town officials in signing a document committing them to work cooperatively towards the implementation of the Peconic Estuary Program’s goals.

**DIRECT ASSISTANCE**

Each year, considerable work related to water quality is performed by NEIWPCC staff who are based outside our Lowell office and who typically work directly with the environmental agency of a member state. While the photographs here represent the activity of only three of these staff members, the photos do capture the vital importance of the work. The photos on top were taken by NEIWPCC’s Katie DeGoosh, who works with Rhode Island DEM’s water monitoring and assessment program. RI DEM has established roughly 200 biomonitoring stations in wadeable rivers and streams (such as the pictured Roaring Brook) to detect environmental changes and characterize ambient river conditions. DeGoosh collected the aquatic mayfly larva, seen on the tip of her glove, during a 2010 biomonitoring station visit; the mayfly represents the type of data collected to make biological assessments.

In the center photo, NEIWPCC’s Richard Chase (at right, red shirt) participates in a fish population survey in the Shawsheen River watershed, using a new barge electroshocker. Chase manages the MassDEP Division of Watershed Management’s Quality Assurance Program. In addition to assisting with water quality and biological surveys on rivers and lakes, Chase’s work in 2010 included conducting field and lab audits, developing and reviewing QAPPs and SOPs, managing analytical laboratory contracts, training staff on sampling and analytical procedures, and reviewing and validating water quality data.

NEIWPCC’s Chris Lassell can be seen to the right in the bottom photo as he surveys unstabilized dredging spoils from a private dam repair/impound excavation project in Essex County, N.Y. An at-risk trout stream can be found 15 feet from the site of the spoils, which are 15-20 feet in depth with a consistence of gelatin. Lassell is among the NEIWPCC employees who work directly with New York State DEC; his tasks include assisting municipalities, non-governmental organizations, and farmers in applying for state and federal aid for pollution prevention activities.

**FUN WITH A PURPOSE** A NY-NJ Harbor Estuary Program public access grant provided crucial support to the Metropolitan Waterfront Alliance and its City of Water Day Festival on July 24, 2010. Educational activities along the New York-New Jersey waterfront attracted thousands of participants, including this group of students seining for aquatic life at Brooklyn Bridge Park.
Training

The work performed by NEIWPCC’s Wastewater and Onsite Systems staff is diverse, but there is no question that training is a high priority for the division—and has been for a long time. NEIWPCC has been offering training programs since 1969, when we launched the New England Regional Wastewater Institute in Maine. While NERWI, as it was called, no longer exists, our commitment to training continues to grow. The increasingly complex technology employed in treatment plants and stringent operator certification requirements adopted by nearly all our member states have made training for operators essential throughout their careers. Training keeps operators current on industry trends and the latest technology, safety issues, and policy development.

In fiscal 2010, we continued with our traditionally intensive course development and delivery process. Before the fall and spring training seasons, NEIWPCC’s training staff consulted with wastewater authorities in our member states, attended conferences and trade shows, and held meetings with such groups as the Green Mountain Water Environment Association—all in an effort to develop a schedule of courses that met the precise needs of the region’s wastewater workforce. With the schedule crafted, we publicized the course options through a redesigned course catalog mailed primarily to treatment plants and municipalities, and a smaller mailer distributed

PICTURE OF PERSEVERANCE

The National 104(g) Meeting in Albany, N.Y., in June 2010 brought together a small group of wastewater training experts, including NEIWPCC’s Tom Groves (front row, far left) and Charles Conway (back row, third from left). For a long time, federal Clean Water Act Section 104(g) funds supported on-site technical assistance in the states to help small community wastewater treatment plants improve performance and maintain permit compliance. But in recent years, EPA has failed to fund the program, despite efforts by NEIWPCC, ASIWPCA, and many other agencies and organizations to bring Congress’s attention to the program’s cost-effective benefits. The gathering in Albany revealed a commitment to maintain the 104(g) community until funding is restored. During the meeting, Groves and Conway delivered a presentation on NEIWPCC’s management training programs.

TAILORED APPROACH  Depending on the topic and the best way to teach it, NEIWPCC training sessions may take place indoors or in the field—and some courses feature both in-field and classroom components. In the photo above, participants in Springfield, Mass., listen intently during a December 2009 course on the care of emergency generators led by NEIWPCC’s Don Kennedy and Caterpillar Corp.’s Charles Bertrand. At right, Jim Jordan (back to camera), collection supervisor in Amherst, Mass., discusses equipment used in high-velocity cleaning as he leads an October 2010 NEIWPCC course on the operation and maintenance of wastewater collection systems.
PLANNING AHEAD

At wastewater treatment plants across the country, a troubling concern has emerged in recent years: Who will fill the shoes of plant managers, so many of whom were hired in the 1970s and are beginning to retire? Simply promoting an experienced operator is seldom a workable solution, since even the best operators often do not have the management skills necessary to succeed as plant supervisors. To help address this issue, NEIWPCC is playing a major role with extensive management training programs for wastewater operators that are now being offered in several New England states.

The state to most recently join this group is Massachusetts, where in the fall of 2010 a program was launched by cosponsors MassDEP, NEIWPCC, and the Massachusetts Water Pollution Control Association. From a pool of applicants, an oversight committee selected the 22 most promising operators, who then embarked on a year of monthly training sessions on managerial topics ranging from labor and media relations to finance and budgeting. For a moderate fee of $500, the operators are receiving training that, while it does not ensure them a management job upon completion, is preparing them for the inevitable openings that will occur. NEIWPCC helped develop the training, and our staff are conducting some of the sessions.

The Massachusetts program is modeled on the successful Management Candidate School in Maine, which is run by NEIWPCC’s JETCC training arm (see page 23), and the similar management “boot camp” in Rhode Island, which was developed and initially conducted with a great deal of assistance from NEIWPCC. Due to the programs’ capacity to solve the very real concerns about succession planning in the wastewater industry, they are receiving national attention. An article in the September 2010 issue of Water Environment & Technology (WE&T), the widely read magazine of the Water Environment Federation, examined the success of the boot camps and featured numerous quotes from NEIWPCC’s Tom Groves and Charles Conway. The programs will get a great deal more exposure when they are the focus of a preconference workshop at the 2011 WEFTEC Conference in Los Angeles.

to thousands of individuals that directed them to our web-based schedule for complete course information. (By sending more mailers than complete catalogs, we dramatically reduced printing and postage costs as well as the amount of paper used in the printing process.) The instructors—both NEIWPCC staff and contracted industry experts—then traveled throughout New England and New York State to conduct the classes, teaching new skills and introducing new technologies to wastewater industry personnel across the region.

The numbers speak to the success of this process: In fiscal 2010, NEIWPCC provided 107 wastewater training classes to more than 2,200 individuals. Popular classes during the year included Phosphorus Removal, Preparing for Your Class I & II Operator Certification Exam with Math, and Sampling Procedures for Wastewater Treatment Plant Operators. While the majority of NEIWPCC courses target operators, we do not neglect the needs of management; a Managers Forum in Hartford, Conn., for example, drew 53 attendees. Led by NEIWPCC Manager of Training Operations Charles Conway, our regularly scheduled Managers Forums provide an ideal setting for wastewater treatment plant managers, state environmental agency representatives, and EPA staff to discuss timely topics such as asset management, new nutrient limits, and grant programs.

In addition to our regular lineup of courses, NEIWPCC conducts training programs customized to meet the specific needs of an operation’s workforce.
During the year, our staff coordinated 24 exam prep courses for Massachusetts, serving well over 500 students. In addition to the courses, we coordinated the state’s operator certification exams, and in fiscal 2010, this involved the additional step of transitioning from paper-based exams to computer-based testing. Those who wish to become certified operators are no longer limited to biannual paper-test dates, and can now take any level Massachusetts exam, industrial or municipal, at virtually any time at some 170 AMP Assessment Centers across the country. The wastewater community embraced the change, as evidenced by the 830 computer-based wastewater exams completed during the year.

NEIWPCC also administers Massachusetts’s wastewater operator renewal process, and in 2010, that meant managing the renewal of some 4,800 licenses, no small task. Throughout the year, NEIWPCC also maintained our searchable database of Massachusetts licensed operators, which allows employers to easily access information about current and prospective employees’ license grade, status, and ZIP code of residence. (Access the database at www.neiwpcc.org/wastewater/search.asp.)

It should be noted that while NEIWPCC coordinates these efforts on a day-to-day basis, the state is still very much in the picture. NEIWPCC staff attended meetings throughout the year with the program’s training advisory committee and with representatives from the Massachusetts Board of Certification of Wastewater Treatment Plant Operators. Issues discussed included strategies for raising the passing rate on higher-level exams, which remains a concern. In the first two quarters of fiscal 2010, 50 percent of the total number of people who took the tests at all grade levels passed. But due in large part to a greater percentage of failing scores on the exams for grades 3 and above, that overall passing rate dropped to 37 percent in the third and fourth quarters.

Massachusetts Title 5

Considering that roughly a third of Massachusetts’s homes have onsite (a.k.a. septic) systems—and that such systems can cause serious environmental problems if not properly installed and maintained—it is no surprise that the state’s environmental code includes a section called Title 5, which among other things requires that anyone who inspects onsite systems or evaluates the soil in which the systems are located have the appropriate credentials and be properly trained. This labor-intensive process has been coordinated by NEIWPCC since 2004, and despite widespread improvements in efficiency, the job remains a challenging one, simply because of the volume. In fiscal 2010, NEIWPCC’s Title 5 staff, led by Manager of Certification Programs Michael Jennings, processed renewal requests for approximately 1,300 soil evaluators and 1,500 system inspectors.

As part of our contract with the state to run the Title 5 program, we also conduct certification training, with the classes held in different regions of the state on a rotating annual basis. The focus in 2010 was on the central and southeast regions, where we held one certification class for soil evaluators and three certification classes for system inspectors. Attendance was strong, with 27 individuals participating, for example, in the April 9 system inspector class in Millbury.
With assistance from MassDEP, NEIWPCC updated the system inspector exam to include 50 additional questions; the exams are currently generated and corrected through an independent testing organization. Such actions and any other issues associated with Title 5 policy are overseen by the Massachusetts Onsite Advisory Committee. NEIWPCC coordinates the committee, which consists of representatives from MassDEP, NEIWPCC, and the Massachusetts Health Officers Association.

**Training in Maine**

Since 1985, NEIWPCC has managed and financially supported Maine’s Joint Environmental Training Coordinating Committee, which has a deceptively simple mission—to coordinate the training needs of Maine’s environmental professionals. That task seems to grow more complicated every year. In fact, for the two NEIWPCC staff who run JETCC, doing more with less has become standard operating procedure. In 2010, a budget-cutting Maine Legislature once again reduced JETCC’s very small amount of state funding, and yet again the staff managed to put together a successful year. A slight increase in training fees helped, as did the modest revenue generated by JETCC’s many programs. But credit must also go to JETCC’s Leeann Hanson and Spring Connolly as well as to the hundreds of industry professionals who volunteer to organize and lead JETCC’s programs.

In fiscal 2010, JETCC delivered multiple training programs on wastewater and drinking water topics, including multi-week classes on basic and advanced wastewater treatment and one-day sessions on everything from “Basic Electricity” to “PVC Valves, Connections and Joining.” Attendance at some courses was surprisingly strong; a pump system assessment tool course in Bangor, for example, drew 50 participants. JETCC also helped Maine DEP’s Non-Point Source Training Center with its courses, and partnered with other organizations to put on popular workshops for septic system installers. Altogether, JETCC directly coordinated or assisted with 59 training sessions during the year that reached a total of 2,086 students.

But the unquestioned highlight of the year was the launch of Maine’s Management Candidate School (MCS). Like the programs in Massachusetts and Rhode Island (see page 21), the MCS provided intensive training for mid-level operators with the talent and drive to be plant managers. Coordinated by JETCC and supported in part by funding from the

**Sharing the Knowledge**

NEIWPCC’s Wastewater and Onsite Systems staff spoke at numerous regional and national conferences in fiscal 2010, informing audiences about work that has generated great interest around the country. Some of the highlights:

- At the Annual National Environmental Health Association Conference in June 2010, Tom Groves delivered a presentation entitled “Massachusetts Title 5 Program: Administration of the Onsite Wastewater Training, Certification, and Renewal Program for a State Agency.”
- Also in June 2010, Charles Conway (above) and Tom Groves spoke about “Developing Future Wastewater Plant Managers—Boot Camp and Other NEIWPCC Ongoing Initiatives” at the National 104(g) Operator Trainers Conference.
- “Evaluating Collection System Management, Operation, and Maintenance Programs in the Northeast” was the title of Michael Jennings’s presentation at the American Public Works Association Annual Conference in August 2010.

**Mission Accomplished** At the Maine Management Candidate School graduation ceremony on September 16, 2010, JETCC Coordinator Leeann Hanson (back row, fourth from right) poses with the attending graduates and Andre Brousseau, president of the Maine Wastewater Control Association.
Maine Wastewater Control Association and Maine DEP, the first edition of the MCS ran from October 2009 to September 2010, with all 17 operators who started the program successfully graduating. For the 2011 MCS, the program was opened up to drinking water treatment plant operators, with Maine DHHS and the Maine Water Utilities Association joining as cosponsors.

“I think you have hit one of the nails right on the head for upgrading the skills of operators… This program is a breath of fresh air to our industry… I commend you for thinking outside the box.”

Jerome J. Guevremont, superintendent of the wastewater treatment plant in Rangeley, Maine, commenting on Maine’s Management Candidate School in a letter to David Littell, Maine DEP Commissioner; Tom Wiley, MWWCA President; and Leaann Hanson, JETCC Coordinator.

New Edition of TR-16

The 1998 edition of NEIWPCC’s Guides for the Design of Wastewater Treatment Works—commonly known as TR-16 (short for Technical Report #16)—continued in 2010 to be one of our most requested publications. But the rapid evolution in processes and technologies that has always characterized the wastewater industry means the guide must periodically be updated. That highly involved process is now underway, but it will take time: When a report is nearly 300 pages long, and contains a vast amount of information on the elements

RESEARCHING THE OPTIONS

When managers at the Upper Blackstone Water Pollution Abatement District were considering whether to adopt a different and perhaps more efficient shift schedule for operators at the district’s wastewater treatment plant in Millbury, Mass., they turned to NEIWPCC for help—and for good reason: In 2008, we had published the widely praised Northeast Guide for Estimating Staffing at Publicly and Privately Owned Wastewater Treatment Plants. In February 2010, the district contracted with NEIWPCC to evaluate the pros and cons of operator shift schedules at 11 large, similarly designed wastewater treatment facilities in New England.

NEIWPCC’s Charles Conway and John Murphy conducted a survey of the plants, and visited eight facilities in Connecticut, Massachusetts, and Rhode Island to observe operations and interview plant staff about the merits of their particular shift schedule. Murphy compiled this information into a report for the district that included detailed descriptions and charts about each facility’s approach as well as analysis of the benefits and drawbacks. The report also included an evaluation of a Pitman 12-hour shift schedule, which is commonly used by fire and police departments.

The analysis contributed to the district’s decision to make significant changes to the Millbury plant’s schedule, including putting more operators on the day shift versus evenings and overnights. This makes it easier to train new operators and to accomplish more strenuous tasks during the daytime. We are pleased to report that the district says the new schedule is working well.
of wastewater treatment that must be considered in the design process, developing a new edition entails a great deal of work. Thankfully, we have plenty of help.

The revision, which is being coordinated by NEIWPCC’s John Murphy, began with the formation of a steering committee made up of state regulators and former TR-16 writers; this committee made initial recommendations on content changes, and from there, the writing began. A team of some 40 wastewater engineering experts, many in the private sector, volunteered to craft the first drafts of the new edition, incorporating the latest information on emerging technologies such as membrane bioreactors and on modern practices such as energy efficiency, asset management, and sustainability. NEIWPCC’s Murphy guided the process at every step, communicating frequently with the writing chairs assigned to each chapter of the guide.

By early 2011, the chapter drafts were complete, and as of the publication of this annual report, the drafts were in the hands of the more than 150 people who have offered to review the text and charts. Whether these individuals work for a state agency, a municipality, or a consulting firm, they all have one thing in common: They are experts in the material they are reviewing. The new edition of TR-16 will be published in late 2011, and will be beneficial to a wide audience, including engineers who design wastewater treatment facilities and state regulators who review and approve the designs.

Residuals

In wastewater terminology, residuals is a general term that refers to both sludge—the solid material in sanitary wastewater—and biosolids, the sludge that has been treated so it can be applied to land as a fertilizer or soil amendment. In NEIWPCC’s member states, it is the job of the states’ residuals programs to manage the beneficial reuse of biosolids, which can be a complicated task. Concerns are still raised now and then about the safety of applying biosolids to cropland, and amid the slow economy in recent years, cutbacks to the residuals programs have made it difficult for them to respond to a decline in land application. Considering the complexity of these issues, it is understandable why the members of NEIWPCC’s Residuals Workgroup relish the opportunity to meet periodically as peers.

The workgroup brings together residuals coordinators from our states’ environmental agencies and EPA...
staff. During the group’s meetings in 2010, members kept each other informed on activities and discussed matters such as regulations for land-applying drinking water treatment residuals and methods for optimizing biosolids operations to cut greenhouse gas emissions. During the year, the workgroup coordinator, NEIWPCC’s Michael Jennings, also acted as a liaison between the group and the New England Water Environment Association’s Residuals Management Committee. In this role, Jennings helped plan the 2010 NEWEA Residuals Management Conference, a two-day event in Lowell, Mass. At the conference, Jennings chaired a regulatory roundtable of our workgroup members, who provided progress reports on their efforts to incorporate revisions into their states’ biosolids regulations. Even under normal circumstances, revising the rules around biosolids is an often drawn-out process that can take years of effort. But with the change in political leadership in so many of NEIWPCC’s member states in 2011, the attempts to enact revisions are likely to take even longer than usual. In fact, in some states, the efforts have been put on indefinite hold.

Onsite Systems

When most people think of wastewater treatment, they think of centralized sewer systems. And indeed, as the previous pages attest, such systems are a high priority for NEIWPCC. But so too are onsite and decentralized systems, which manage the much smaller amounts of wastewater generated by individual homes, clusters of homes, institutions, and isolated communities. Septic systems make up the largest subset of this category, and there are plenty of them—some 26 million septic systems recycle billions of gallons of wastewater every day in the United States. With so much of the new development in NEIWPCC’s member states using onsite and cluster systems, the need for NEIWPCC to coordinate regional onsite-related activities and programs is only growing in importance.

As in our other areas of focus, a workgroup is the main vehicle through which this work is accomplished. For many years, NEIWPCC’s Onsite Workgroup has provided staff from our member states and EPA with an opportunity to engage in productive dialogue about the challenges associated with onsite systems and to collaborate on projects. In 2010, NEIWPCC staff coordinated several workgroup conference calls, and the members discussed a host of topics including new state regulations, opportunities for stimulus funding for decentralized projects, the wide range of treatment technologies available to the states, and the states’ processes for approving new onsite/decentralized systems. In a time of tight state budgets, the workgroup provided another important function: It allowed those members, including NEIWPCC staff, who may have attended a conference or workshop to share what they learned with members unable to make the trip due to travel restrictions.

Beyond our workgroup coordination, NEIWPCC’s onsite staff continued to represent our states’ interests by participating in a long list of groups, including the Small Community Committees of the Water Environment Federation and New England Water Environment Association, National Onsite Wastewater Recycling Association (see highlight at right), Yankee Onsite Wastewater Association, National Environmental Health Association, Consortium of Institutes for Decentralized Wastewater Treatment, and the State Onsite Regulators Alliance. Staff also attended a number of conferences, including a forum held by the Water Environment Research Foundation project on the performance and costs of decentralized wastewater systems, and serving as chair of the New England Water Environment Association’s Small Community Committee.
The forum was not designed to advocate either approach but rather to offer unbiased information to Cape Cod towns on their options. The speakers provided attendees with an overview of the wastewater management decision-making process, evaluation criteria, and the economic and environmental impacts of the towns’ wastewater treatment alternatives. All the presentations were designed with one goal in mind—to deliver information that will allow the Cape’s towns to address wastewater issues in a manner that incorporates good science, appropriate technologies, and acceptable legal and financial means of implementation that will protect and restore sensitive water resources while maintaining economic sustainability.

One of the 2010 Lowell YEP students, Abimalec Martinez Cortes (left), tries her hand at laboratory work under the supervision of Katie Taylor of the Lowell Regional Wastewater Utility.

“NEIWPCC played an essential role in pulling together the right parties to ensure that our forum was productive and advanced the public’s understanding of the Cape’s important water quality issues. The forum has served as a basis for progress that has enabled many towns to advance their water quality initiatives.”

Andrew Gottlieb, Executive Director, Cape Cod Water Protection Collaborative
At NEIWPCC, nothing is more important than protecting our member states’ water resources. The region’s surface waters and groundwater supplies face a myriad of threats, and through the work of our Water Resource Protection staff, NEIWPCC works to address both new and longstanding concerns. In 2010, some of the staff’s most important work came in familiar territory for NEIWPCC. For more than 25 years, we have been working with EPA, states, tribes, and other partners to prevent, detect, and clean up leaks from underground storage tanks or USTs. And in the tanks world, the issues keep coming.

During the year, we saw increased talk, for example, about the compatibility of tank systems with biofuel blends, since many systems are not set up to handle storing gasoline containing greater than 10 percent ethanol or diesel containing an amount of biodiesel. Ethanol blends are more corrosive than standard gasoline, and the storage of biodiesel raises concerns about microbial growth. And then there are the lingering issues. In EPA’s fiscal 2010 UST report, the agency reported much progress in cleaning up tank releases across the country—but there were still more than 93,000 cleanups to be done.

Since 1989, NEIWPCC has been heavily involved in an event that provides an ideal forum to address tanks issues. Every 18 months, the National Tanks Conference and Expo brings together the tanks community to focus on programs and priorities, learn from the experts, and learn from each other. In 2010, the conference took place in Boston on Sept. 20-22, with NEIWPCC leading the development. Our staff coordinated planning team conference calls; handled logistics for session organizers, moderators, and speakers; and managed everything from registration to catering.

All the work bred success, as more than 750 people attended the event, an increase of 50 percent over the year before. Attendees came from all 50 states and two countries (Canada and the Ukraine), and their feedback on the experience was overwhelmingly positive. The next National Tanks Conference will be held in St. Louis on March 19-21, 2012, and once again, NEIWPCC is coordinating the preparations.
Group Efforts

In addition to the national conference, NEIWPCC staff also coordinated several meetings of our UST, LUST, and State Fund Workgroup, which is comprised of state tanks officials from the prevention and cleanup sides as well as state administrators of gasoline tax-generated cleanup funds earmarked for UST leaks. (LUST stands for leaking underground storage tank.) The group discussed progress on a number of priorities, including stimulus money for LUST cleanups, “green” LUST cleanup policy, and community engagement at cleanup sites.

The training of UST operators and inspectors is also a priority for the workgroup—and for NEIWPCC. Effective training is seen as a key factor in achieving national UST compliance, and for several years, NEIWPCC staff have been working with state and EPA representatives on a variety of training initiatives. In 2010, the work moved significantly forward as we launched a new website section for UST inspectors (www.neiwpcc.org/ustinspectors.asp), which offers an abundance of training information and tools as well as an interactive online forum dedicated solely to inspector issues (see page 37). During the year, NEIWPCC also coordinated two advanced training webinars for inspectors, both focusing on Tank and Line Tightness Testing. The extremely positive response to the webinars revealed the demand for the training and the popularity of webinars at a time when staff in many states are restricted from traveling; registration for the first webinar filled within 12 hours, and collectively, the two webinars reached more than 400 people nationwide. As of the writing of this annual report, two more inspector webinars had been held in fiscal 2011, with more to come.

Still Going Strong

Twenty-five years after NEIWPCC published the very first issue of LUSTLine, this national publication remains unrivaled in its ability to deliver timely news on tanks issues, activities, and technologies. Editor Ellen Frye and designer Ricki Pappo work tirelessly to make each LUSTLine a must-read for the tanks community; the issues invariably feature numerous articles from some of the most prominent tanks experts in the country.

In fiscal 2010, we published three LUSTLines, each filled with notable articles. The June 2010 issue, for example, included a cover feature by longtime contributors Marcel Moreau and Ben Thomas of Petroleum Training Solutions. They examined the diverse approaches being taken around the nation by states working to implement UST operator training.

The printed version of LUSTLine is distributed free of charge to subscribing federal, state, and local government employees. Visit www.neiwpcc.org/lustline.asp for subscription information, free downloadable versions of current and archive issues, online-only supplements, and an index of every LUSTLine article published since 1985.
Climate Change

For those hoping for comprehensive climate change legislation from Washington, 2010 was a disappointing year. The U.S. Senate retreated on the climate bill during the summer, despite mounting scientific evidence of the climate threat. At NEIWPCC, that evidence is taken very seriously, as it is within our member states. With climate change expected to have a dramatic impact on water resources, the time to begin planning change monitoring networks, in which data collected by the states would be tracked and shared throughout the region. Also on the agenda: developing climate change adaptation strategies for water, wastewater, and stormwater infrastructure. To help address these priorities, the workgroup formed monitoring and adaptation subcommittees, which are now further refining the plans.

Members of the workgroup also provided valuable input as NEIWPCC staff crafted a letter commenting on the Progress Report of the Interagency Climate Task Force for the Northeast. In 2011, NEIWPCC’s Jaclyn Harrison, who manages our tanks work, also began coordinating in-person inspector training, with six two-day sessions scheduled to be held during the year in strategic locations around the country.

Regional progress on UST operator training has come more slowly. The current focus is on developing well-constructed operator exams and once exam results are obtained, to develop training to fill the gaps in knowledge. In early fiscal 2010, a select group of tank inspectors, regulators, and installers met at NEIWPCC’s offices to review questions from the International Code Council’s national operator exam and submit feedback. The exam was then expanded to include more of the region’s needs.

Climate Matters

During the June 2010 meeting of our Climate Change Workgroup, the workgroup’s coordinator, NEIWPCC’s Jessica Cajigas, listened to Vermont DEC’s Steve Fiske. At rear is Jennifer Pagach, Connecticut DEP.

According to the latest report from the United States Global Change Research Program, which began as a presidential initiative in 1989 and was mandated by Congress in 1990, global warming is unequivocal and due primarily to human-induced emissions of heat-trapping gases. The USGCRP says we are already seeing increases in heavy downpours, rising temperature and sea level, rapidly retreating glaciers, thawing permafrost, lengthening growing seasons, longer ice-free seasons in the ocean and on lakes and rivers, earlier snowmelt, and alterations in river flows. And those changes are projected to increase in intensity, with stress being placed on water resources in particular. In the West, the big concern is the projected increase in the frequency and duration of droughts brought on by reduced precipitation, increased evaporation, and increased water loss from plants. But the USGCRP says that virtually all parts of the country, including the East Coast, are likely to be affected by climate change.

In 2007, NEIWPCC launched a Climate Change Initiative to keep our member states apprised of developments in this area and to pursue regional approaches to climate change-related issues. The non-alarmist, sobering analysis done by the USGCRP underscores the importance of our efforts—and all others across the world—to confront this universal threat.
**Change Task Force.** Sent on behalf of our states to the Council of Environmental Quality at the White House, NEIWPCCC’s May 2010 letter commended the task force’s work and emphasized our agreement with the six elements identified by the task force as key to a national strategy on climate change adaptation. With regard to evaluating the success of adaptation efforts, however, we pointed out that the task force did not go quite far enough when it stated that past conditions will no longer help predict future conditions. In fact, as we wrote, historical conditions may no longer even be attainable; therefore, new baselines or goals will need to be established.

Our influence on another high-profile climate change effort was even more direct. Becky Weidman, NEIWPCCC’s Director of Water Resource Protection from 2008 until January 2011, worked throughout the year as a member of the Climate Ready Water Utilities Working Group. The National Drinking Water Advisory Council convened the group to develop recommendations for helping water and wastewater utilities plan for climate change impacts. In December 2010, the CRWU Working Group released a final report calling for 12 actions, including the development of an EPA program to articulate and support the adoption of climate ready activities by utilities, and the establishment of a continuing education program wherein EPA, in partnership with other water sector organizations, offers training to help utilities identify, assess, and prioritize climate considerations and integrate them into utility planning, managerial, and operational processes. This latter recommendation in particular connects well with NEIWPCCC’s capabilities, and we will be closely tracking progress toward its implementation.

**Pharmaceuticals and Personal Care Products**

Studies continue to show that pharmaceuticals and personal care products (PPCPs) are present in our nation’s water bodies. In May 2010, the National Water Research Institute released research showing very low levels of PPCPs and other unregulated chemical compounds in three major drinking water sources for more than 25 million people in southern California. Among the constituents detected were antibiotics such as ciprofloxacin and anti-convulsants such as carbamazepine.

While EPA is currently evaluating the potential risks associated with PPCPs on public health and aquatic life, NEIWPCCC is moving forward. Our staff worked extensively throughout the year on preparations for the Northeast Water Science Forum in Portland, Maine, April 27-29, 2011. Held just before the publication of this annual report, the 2011 edition had one overarching goal—to help the Northeast states make informed decisions on PPCP policy and management. To do so, NEIWPCCC brought together scientists; engineers; local, state, and federal regulators; and other stakeholders to communicate the latest findings on PPCPs in the water environment. The forum featured some of the nation’s most prominent figures in the field, including Paul Anastas, assistant administrator and science advisor at EPA’s Office of Research and Development, who delivered the keynote address. Over the course of the conference, speakers delivered multiple presentations, ranging from “Combined Sewer Outflows as a Source of Hormones to Surface Water” to “Unwanted Medicines and Educating our Communities: Experiences from the Great Lake States.” Coming four years after the first Northeast Water Science Forum, the event illustrated that while significant progress has been made on PPCPs, more work remains to be done to integrate PPCP science into policy and regulations, risk assessments, green chemistry movements, and identification of future research needs.

Members of NEIWPCCC’s PPCP Workgroup, which is comprised of many of the region’s top state, federal, and academic staff working on PPCPs, played major roles at the forum in Portland as well as in preparations for the event. But the group’s fiscal 2010 meetings covered much other terrain. Topics of discussion included PPCP impacts on biosolids, the removal of PPCPs from onsite wastewater treatment systems, and outreach; as the members discussed, there is a tremendous need to provide clear, unbiased information to the public on all aspects of PPCPs. Even amid the budget-driven limits on travel by state staff, every seat was filled at the workgroup’s June 2010 meeting at NEIWPCCC’s Lowell offices, a clear indication of the prominence of PPCP issues in our states. For workgroup members unable to attend the meeting in person, NEIWPCCC made the proceedings available over the Internet via a webinar.
Drinking Water

More than any year in recent history, drinking water concerns were very much in the news in 2010. Chief among them: the controversy over hydraulic fracturing (or “fracking”) and its potential impact on drinking water supplies, and a report showing the presence of chromium-6, a well known human carcinogen when inhaled, in more than 30 U.S. public water systems. At NEIWPCC, we closely followed the news, keeping our Commissioners informed of any regional impact. Fracking is a major issue in one of our states, New York, while chromium-6 is a concern across the board; as this report went to press, EPA was continuing with its studies of the appropriate response to both situations.

Keeping our states informed, however, was only a small part of our work on drinking water. Throughout the year, NEIWPCC staff worked to develop even stronger relationships with our member states’ drinking water programs to more fully ascertain their needs. We convened three meetings of our Drinking Water Administrators Workgroup, allowing us to hear straight from the women and men who manage the states’ drinking water programs. The discussions were wide-ranging, covering subjects such as EPA’s new drinking water strategy, the lead and copper rule, and public notice violations. The group also moved forward with plans to develop fact sheets for the states’ water systems on how to effectively respond to a flood emergency.

In addition, NEIWPCC staff managed conference calls and a meeting at our Lowell offices of the region’s state and federal staff who work on the enforcement of drinking water regulations. We also fostered communications among state and federal staff who focus on the process known as capacity development—that is, methods for helping small water systems maintain the technical, managerial, and financial capabilities they need to consistently provide safe drinking water.

We held conference calls and supplied the capacity development staff with the type of regional information that we are perfectly suited to provide; for example, the group needed details on water rates, so NEIWPCC’s Jessica Cajigas, who manages our drinking water work, generated a comprehensive list of water rates for utilities around New England as well as a list of rate-setting tools.

Special Events

On November 10, 2009, NEIWPCC hosted an Electronic Sanitary Survey (ESS) Workshop at the EPA New England Regional Laboratory in Chelmsford, Mass., for state drinking water staff, particularly those who conduct sanitary surveys of public water systems but also those who use the valuable information the surveys generate. For many years, sanitary surveys were done the old-fashioned way—with pen and paper—but increasingly inspectors...
the states’ approaches to licensing and certification, national regulations, installation trends, and lessons learned from the states’ work so far on these systems, which experience a spike in sales any time oil prices rise.

Before the May 2010 workgroup meeting, NEIWPCC staff surveyed the members to get an update on their priority topics; geothermal wells made the list as did subjects such as cyanobacteria, PPCPs, and stormwater. To address the latter, our staff began working to set up a joint meeting between the Groundwater/Source Water Protection Workgroup and our Stormwater Workgroup. At NEIWPCC, we believe strongly in the value of periodically bringing together two of our workgroups, whose members may share some of the same concerns but seldom have the opportunity to communicate with each other. The joint workgroup meeting took place in October 2010, providing participants with an ideal forum to discuss stormwater infiltration and potential effects on groundwater quality.

Water Resource Protection Partnerships

While the Hudson River is indisputably one of America’s legendary rivers, it was not too long ago that the river was best known for all the pollution within it. Thankfully, the Hudson now runs far cleaner, though pressures remain, thanks to urban and agricultural runoff and the residues of decades of industrial dumping. Since 1999, NEIWPCC has been providing funding and staff to New York State Department of Environmental Conservation programs that work to protect, conserve, restore, and enhance the Hudson River and its estuary—and to increase our knowledge of the waters and the aquatic life within them.
In fiscal 2010, NEIWPCC staff at the Hudson River Estuary Program and the Hudson River National Estuarine Research Reserve coordinated and engaged in a variety of activities, including river bottom (benthic) mapping, educational canoe trips, teacher workshops, classroom presentations, grant administration, publication of the online *Hudson River Almanac*, water quality and nutrient sampling, actions to prevent the spread of invasive species, sturgeon tracking, and spawning stock surveys. The work has generated impressive results: A New York State standards-based curriculum developed by NEIWPCC’s Rebecca Houser, for example, is now being used by classroom programs underway in 40 Hudson Valley schools and by the “Teaching Hudson Valley” initiative of the Hudson River Valley National Heritage Area. And the work is getting attention at high levels: A paper co-authored by NEIWPCC’s Dan Miller and Matt Collins of NOAA was accepted for publication in the journal *River Research and Applications*. The paper summarizes years of GIS analysis comparing historic and modern maps of the Hudson to identify how habitats in the upper estuary have been affected by construction of a navigation channel a century ago. The work, which identified a dramatic loss of habitats critical to coastal migratory fish, is being used to support ongoing ecosystem restoration planning efforts.

As the photographs on this page attest, much of our staff’s work is conducted directly on the Hudson, where they gather information on the fish in its waters. The work has dramatically improved scientists’ understanding of when and where spawning fish use the river—and that knowledge is used in multiple ways, including to inform management decisions on permits, habitat protection, and habitat restoration.
Since NEIWPCC’s inception, a key role of the Commission has been to develop resources and conduct activities that engender a greater understanding of the water-related issues in our region. In recent years, that commitment to education and outreach has been most visibly expressed in the pages of Interstate Water Report, our printed newsletter. Actually, calling IWR a newsletter is somewhat of a misnomer; while the issues do contain news of NEIWPCC’s activities, the emphasis in IWR is on original reporting and journalistic narrative. This approach produces articles that provide timely, comprehensive, and consistently readable coverage of the water and wastewater issues that matter to our member states.

Since IWR’s launch in 2003, we have periodically delved into a subject in even greater depth than usual and published a special report. Such was the case with the Winter 2010 issue, which featured IWR Editor Stephen Hochbrunn’s in-depth examination of the concerns, conflicts, and signs of progress associated with keeping the region’s roads clear of ice and snow. Focusing in part on the tense standoff in Boxford, Mass., between residents and state officials over the use of road salt, Hochbrunn reported on the impact of winter road maintenance practices on water quality and aquatic life, and the innovative work being done across the region to reduce the use of sodium chloride.

In addition to being sent to IWR’s more than 3,200 subscribers throughout the country, the article received additional exposure when it was featured in the March 8, 2010, edition of Brown and Caldwell’s Northeast Water News. The response to the article was swift and positive. One of the many emails we received came from Jeffrey Folts, an environmental engineer at Huntley Associates in Northampton, Massachusetts.
THE WINTER 2010 IWR

INTERSTATE WATER REPORT
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The year saw renewed interest in a 2005 IWR special report on the challenges faced by states in their efforts to train and recruit wastewater treatment plant operators. After being distributed to students in Maine’s Management Candidate School (see page 23), the issue made it into the hands of a legendary member of Maine’s wastewater community, Jerome “Frenchie” Guevremont, who was struck by its continued relevance. Guevremont sent copies of the issue to numerous local and state officials. All past issues of IWR are available in their entirety at www.neiwpcc.org/iwr/iwrarchives.asp.

SPOTLIGHT ON PERCHLORATE AMID DETECTIONS IN WATER SUPPLIES

Perchlorate, like other contaminants, may or may not pose a concern to you. Perchlorate can interfere with iodide uptake by the thyroid gland, which may not pose a concern to you. Perchlorate can interfere with iodide uptake by the thyroid gland, which may not pose a concern to you.

MEETING THE COMING TOGETHER FOR CLEAN WATER CONFERENCE

The Winter 2010 IWR also included a detailed article by NEIWPCC’s Susy King on the discovery of invasive zebra mussels in Massachusetts waters, Executive Director Ron Poltak’s column on the aging Clean Water Act, and Beth Card’s regular feature exploring the latest water-related legal developments. (In addition to being NEIWPCC’s director of water quality programs, Card is a licensed attorney in Massachusetts.) To access online versions of the articles, visit IWR’s home on the web at www.neiwpcc.org/iwr/iwr.asp, which also contains information on how to sign up for a free subscription.

“It has taken me a while to get through the article, reading it at lunch break, but I cannot think of another more thorough, thoughtful, and fair treatment of a difficult subject.”

Jeffrey Folts, environmental engineer at Huntley Associates in Northampton, Mass., in an email to NEIWPCC regarding the winter road maintenance special report in the Winter 2010 IWR.
Web Work

As any regular visitor to www.neiwpcc.org could attest, our website underwent major revisions in fiscal 2010. NEIWPCC’s web developer, Mark Taylor, implemented numerous changes, including a new main menu and fully streamlined navigation, resulting in fewer “clicks” necessary for users to get to their desired destination. Taylor significantly improved the site’s search function and the security of the growing number of password-protected areas of the site; secure web pages have been developed for several workgroups, our Commissioners, and our employees. And a series of improvements to the website’s structure and look dramatically improved information accessibility and enhanced the user’s overall experience.

One new feature deserves special recognition: To support NEIWPCC’s extensive work on the training of underground storage tank inspectors, Taylor implemented an online forum that allows inspectors to privately exchange information and views on UST rules and regulations, release prevention and detection, alternative fuels, and inspector training. The forum launched publicly in early 2011.

Couple all the improvements with the vast amount of information within the site and it is no surprise that the result is high usage. Traffic data from Google Analytics show that in a typical month, nearly 5,000 people visit our website. These are “absolute unique visitors” in Google terminology, meaning each individual is counted only once, no matter how many times he or she visits the site.
Outreach Activities

Beyond our newsletters and work on the web, NEIWPCC’s education and outreach staff engage each year in various other activities designed to further awareness of the water and wastewater challenges in our member states. Seen here are just a few examples of this important work in fiscal 2010.

**NEIWPCC 101** Communications Manager Stephen Hochbrunn talks about NEIWPCC and our programs and projects in a presentation to the Rotary Club of Andover, Mass., on January 29, 2010. Club members expressed particular interest in Hochbrunn’s comments on developing the IWR special report on winter road maintenance (see page 35). At the time of the talk, Andover officials were engaged in a long-fought battle to get a road salt storage shed moved out of the town’s watershed district.

**LOCAL HERO** NEIWPCC staff on NEWEA’s Public Education Committee once again helped judge the entrants in the region’s state Stockholm Junior Water Prize competitions. And in 2010, one of those state winners, Rebecca Ye of Bangor, Maine, went on to win first place in the national competition. In Ye’s winning project, she demonstrated a technique for combining the sciences of microbiology and nanotechnology to create a biosensor capable of rapid identification of strains of the foodborne pathogen *E. Coli*.

**RESOURCE REPOSITORY** NEIWPCC has long maintained a library of materials related to our work, and periodically these materials prove to have more than just historical value. When the Lowell National Historical Park needed maps of the Merrimack River watershed, they came to us—and we found precisely what they were looking for in a series of maps NEIWPCC helped produce in the early 1990s. “Thank you for allowing us to scan and use images from NEIWPCC’s watershed maps,” wrote the park’s William Morton in an email. “The maps will augment our environmental programs and serve to help inform and educate hundreds of students, teachers, and park visitors.”

**EARLY EXPOSURE** In early June 2010, NEIWPCC staff led students at two schools in the Boston area through basic water quality tests as part of World Water Monitoring Day, an international effort coordinated by the Water Environment Federation and the International Water Association. In the photo above, students from Esperanza Academy in Lawrence collect water samples from the Merrimack River; once back in the classroom (right), the Esperanza students tested the water for four “snapshot” parameters of watershed health: temperature, pH, turbidity and dissolved oxygen.
This page contains the results of the latest audit of NEIWPCC’s program revenue and expenditures for the fiscal year ending September 30, 2010. The Commission is a not-for-profit organization, exempt from taxes under Section 501(c) (3) of the Internal Revenue Code.

We continue to receive a sizable portion of our funding from the United States Environmental Protection Agency in the form of grants and cooperative agreements. From our member states, we receive direct financial support in the form of annual dues as well as substantial funding for projects pertaining to specific water bodies. Among our other sources of revenue are our training and certification programs, including those we conduct for the Commonwealth of Massachusetts and the State of Maine. Fees generated by the Massachusetts and Maine programs are shown on the statement of program activities as separate sources of revenue.

Considering the economic climate and rising costs across the board, fiscal 2010 was a fair year financially for NEIWPCC, with total expenses exceeding total operating revenue by a small margin. This resulted in a slight decrease in net assets, which provide a reserve for the organization to draw upon if necessary to temporarily support operations.

Independent auditors perform an audit of NEIWPCC’s annual financial statements, as required by our Compact and our various grants and contracts. The audit is conducted in accordance with U.S. generally accepted auditing standards, issued by the Comptroller General of the United States.

Linda Agostinelli, C.P.A.
NEIWPCC Comptroller
Service to NEIWPCC equates to service to our region and to our member states, hence we have always viewed the achievement of milestones in that service to be worthy of recognition. In fiscal 2010, NEIWPCC Commissioners marking 10 years of service were Albert Bromberg, New York; Charles Button, Massachusetts; Alicia Good (Commission representative for the director of Rhode Island DEM); and Salvatore Pagano, New York. Leo Hetling, New York, reached the 20-year milestone. Each received a gift of appreciation at the NEIWPCC Commission meeting in September 2010.

At our All-Staff Meeting in June 2010, we honored NEIWPCC staff achieving employment milestones. Five years: James LaLiberte; ten years: Susan Bailey, Ann-Marie Caprioli, Amanda Higgs, John Ladd, Dan Miller; and 20 years: Tom Groves, Susan Sullivan.

Congratulations again to all, and thank you for your many contributions.