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Department of Public Health
Represented by Beverly Anderson, Bureau of Environmental Health
Paul Hogan, Holden
John Sullivan, Dorchester
F. Adam Yanulis, Cambridge

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Department of Public Health
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Michael Fine, Director, Department of Health
Represented by June Swallow, Chief, Office of Drinking Water Quality
Donald Pryor, Providence

Vermont
David Mears, Commissioner,
Department of Environmental Conservation
Represented by Pete LaFlamme, Director, Watershed Management Division
Harry Chen, Commissioner, Department of Health
James Ehlers, Colchester
Eugene Forbes, Burlington
Dennis Lutz, Essex Junction

Cover: A fisherman tries his luck in the waters of Long Island Sound at Sunken Meadow State Park, Suffolk County, New York. Through a variety of efforts, including our work on the Long Island Sound TMDL and our management of research projects and development of publications for the Long Island Sound Study, NEIWPCC is deeply involved in matters related to the health of this remarkable body of water.

*As of September 30, 2012. An up-to-date list of NEIWPCC’s Commissioners is available at www.neiwpcc.org/commissioners.asp.
We’re now managing at the edge.

Across our region, we have large and valuable ecosystems that are impaired as a result of culturally accelerated eutrophication; Long Island Sound, Great Bay, and Lake Champlain are three well-known examples. These impairments are primarily driven by an excessive contribution of nutrients—phosphorus and nitrogen—from diverse sources throughout the watershed. Although increased removal of these nutrients from point source discharges will be a part of the solution, it won’t be enough to fully restore these waters. A significant reduction of loadings from nonpoint sources, or more accurately “precipitation-driven discharges,” will be necessary as well. As we know, the most effective control of these types of discharges involves management of activities at the land-water interface—at the edge—both literally and in the regulatory context.

Unlike the control of steady-state discharges from sources such as wastewater treatment facilities, where end-of-pipe solutions at the point of discharge can be effectively designed and implemented, control of precipitation-driven discharges is most effectively accomplished by addressing how and where the pollution is first generated, typically by affecting activities on the land. Best management practices take the place of pumps and tanks, and design conditions vary widely at the whims of the weather. Laws and regulations written in the context of discretionary discharges under steady-state conditions often translate poorly when applied to the management of activities on land and during wet weather conditions. These challenges notwithstanding, significant progress in the control of these discharges needs to occur if we are to realize our common goal of clean and healthy waters. A multidisciplinary approach, involving engineers, scientists, lawyers, and planners, must both develop and implement solutions on a watershed-wide scale.

The regional development of effective solutions is an important and efficient way for us to make progress on these types of challenges—and the New England Interstate Water Pollution Control Commission is taking the lead in a number of areas of critical importance to its member states. One prime example is NEIWPCC’s leadership in a regional effort to evaluate nonpoint source pollution sources and existing state controls in the Long Island Sound watershed. But there are many other examples, such as NEIWPCC’s coordination of multistate nutrient TMDL efforts, its management of regional meetings geared toward reduction of runoff pollution from turf fertilizers, and its leadership stance on the need for reauthorization of the 1972 Clean Water Act. Although reauthorization is a seemingly overwhelming challenge, that cannot diminish our commitment to the task. The CWA must be revised so it clearly articulates the new tools necessary for more effectively managing the sources of nutrients within runoff.

In so many areas, there is a wealth of knowledge that NEIWPCC brings to the table, through both its staff and through the contributions from its member states. To all who participated in the efforts presented in this annual report, thank you. Let us continue to work together as we stand together—at the edge, on this next frontier of water quality improvement.
Established by an Act of Congress in 1947, the New England Interstate Water Pollution Control Commission is a not-for-profit interstate agency that employs a variety of strategies to meet the water-related needs of our member states—Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. We serve and assist our states by:

- Coordinating forums and events that encourage cooperation among the states.
- Developing resources that foster progress on water and wastewater issues.
- Representing the region in matters of federal policy.
- Training environmental professionals.
- Initiating and overseeing scientific research.
- Educating the public.
- Providing overall leadership in water management and protection.

NEIWPCC is overseen by 35 Commissioners—five from each member state—who are appointed by their state governors. (See list on inside front cover; note that the number of NEIWPCC Commissioners from each state can vary from year to year due to the gubernatorial appointment process.) A state’s delegation typically consists of the heads of its environmental and health agencies supplemented by three highly experienced individuals from outside state government, providing the Commission with diverse, expert leadership. The Commissioners elect a chair and vice-chair, with these officer positions rotating between the states to ensure equal representation. The vice-chair typically ascends to chair after each has served two one-year terms.

NEIWPCC’s staff, under the direction of Executive Director Ronald Poltak and Deputy Director Susan Sullivan, develops and carries out programs endorsed by our Commissioners. The majority of NEIWPCC’s work falls within our three main divisions—Water Quality, Wastewater and Onsite Systems, and Water Resource Protection—with additional work performed in areas such as communications and outreach.

This report covers NEIWPCC’s accomplishments during fiscal year 2012, which began on October 1, 2011, and ended on September 30, 2012. Some activities that took place in fiscal 2013 are included to complete descriptions of work performed in fiscal 2012.

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Overview

There is no question that since the New England Interstate Water Pollution Control Commission was formed in 1947, great progress has been made in the work for clean water. But as this annual report was being prepared came news that revealed just how far we have yet to go. On March 19, 2013, the American Society of Civil Engineers released its latest quadrennial report card on the nation’s infrastructure. The grades for both wastewater and drinking water infrastructure improved slightly from ASCE's 2009 report card, but the grade of D each received remained a dismal assessment. And the report cited the immense costs associated with more substantial improvement: Capital investment needs for the nation's wastewater and stormwater systems are estimated to total $298 billion over the next 20 years, and the cost over the coming decades of a comprehensive replacement of America’s aging drinking water pipes could reach more than $1 trillion. One week later, the U.S. Environmental Protection Agency released the results of the first comprehensive survey looking at the health of thousands of stream and river miles across the country. The survey found that more than half—55 percent—of the rivers and streams are in poor condition for aquatic life.

Of course, there’s good news too: In an Earth Day 2013 editorial from New Hampshire Department of Environmental Services Commissioner Thomas Burack released as this report was going to press, the Commissioner wrote that the state issued 68 beach advisories in 2012, fewer advisories than in the three previous summers. Given beach advisories are one clear indicator of the health of lakes, ponds, rivers, and streams, the decline in advisories in New Hampshire is one of many steps in recent years in the right direction. But even amid such signs of progress, there is no doubt that in our region we still face many difficult challenges in the water and wastewater arena—as NEIWPCC’s chair, Pete LaFlamme, articulates so well in his letter opening this report. To get the necessary work done, it will take working together. And at NEIWPCC, bringing people together is our specialty.

Forums for Progress

NEIWPCC’s commitment to fostering coordination and collaboration among decision-makers is best seen in the meetings that regularly bring together our Commissioners—the men and women who are so instrumental to everything that we do. As seen in

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the list on the previous page, we held three meetings involving all our Commissioners in fiscal 2012. These meetings provide a forum unlike any other in the region, a forum where this select group of distinguished, highly accomplished individuals can engage in frank, open dialogue about the issues they face. We are pleased to report that the meetings during the year were extremely well attended, with many states often represented by their full complement of Commissioners. As stated on page 2, each of our seven member states is represented by five Commissioners, with a state’s environmental agency commissioner always a member of that group. In most cases, the head of a state’s health department is also included, and the rest of the delegation consists of Commissioners from outside of state government. Our Commissioners are a diverse group—intentionally and appropriately so. It is only by bringing such diversity to a common table that we can have any hope of fully reconciling differing views and forging the relationships and working partnerships that are so critical to success.

A very brief rundown of what transpired at the September Commission Meeting in Stowe, Vermont, illustrates the value of these gatherings. With 43 people in attendance, the meeting opened with an update on the Lake Champlain Total Maximum Daily Load (TMDL) from a special guest, Eric Smeltzer of Vermont’s Department of Environmental Conservation. NEIWPCC’s Tom Groves and EPA’s Roger Janson then teamed up to lead a talk on the framework for integrated planning, which aims to streamline the meeting of the Clean Water Act’s objectives by identifying efficiencies in implementing competing requirements that arise from separate wastewater and stormwater projects. More discussions followed, then came a hallmark of every Commission meeting—the opportunity for each state to brief the group on key state legislative and budgetary developments. The meeting subsequently moved on to a series of highly informative presentations, including a talk by New York State DEC’s Joe DiMura on the 2011 New York City Combined Sewer Overflow (CSO) Order and integrating green infrastructure into the city’s long-term CSO control plans. Also of note: Chuck Schwer of Vermont DEC’s discussion of the far-reaching impact of natural disasters on the state’s aboveground and underground storage tanks and its solid and hazardous waste facilities. Later in the meeting, NEIWPCC staff
updated the Commissioners on a number of our activities including our extensive work on wastewater operator training and certification and our leadership of the Northeast Voluntary Turf Fertilizer Initiative.

Much more occurred at the September meeting that can’t possibly be included in the limited space here, but suffice to say it was all worthwhile and highly relevant to the participants. This was no accident. Before each Commission meeting, NEIWPCC senior staff work assiduously on crafting agendas that cover issues of importance to the Commissioners; the issues require the Commissioners’ attention and benefit from it. Such intensive preparation also occurs before each of our Executive Committee meetings, of which there were five during the year. NEIWPCC’s Executive Committee is a smaller group that is limited to the commissioners of our state’s environmental agencies—who typically delegate a representative to attend the meetings—as well as representatives from the U.S. Environmental Protection Agency’s New England branch, EPA Region 1. The

Informal discussions that take place away from the Commissioners’ table are a critical aspect of the gatherings. After day one of the January meeting, NEIWPCC Deputy Director Susan Sullivan (right) confers with our vice-chair; Yvonne Bolton of Connecticut DEEP (left) and Beverly Anderson, Massachusetts DPH.

Farewells and Welcomes

Due to elections and the change they frequently bring to state administrations, NEIWPCC is accustomed to periodic turnover in our agency Commissioners—that is, the men and women who lead the environmental agencies in our member states and are assured of seats on the Commission. But fiscal 2012 was notable for the unusual number of changes in our non-agency Commissioners. We bid farewell to five men who served NEIWPCC with distinction over the years—Albert Curran (Maine); Charles Button, James Rogers, and Lester Sutton (Massachusetts); and Will Abbott (New Hampshire). And we welcomed three newcomers—Paul Hogan, John Sullivan, and F Adam Yanulis (Massachusetts)—while welcoming back an old friend, Robert Varney (New Hampshire).

As senior water resources, regulatory and compliance specialist at Woodard & Curran, Paul Hogan helps clients throughout New England address regulatory issues. John Sullivan has worked for the Boston Water and Sewer Commission since 1978 and has served as BWSC’s chief engineer for the past 23 years. F Adam Yanulis has 26 years of experience working with public and private water utilities and state and federal agencies, and since 1997, has served as a vice-president at CDM Smith, where he is responsible for sales and marketing municipal services in New England. A former head of New Hampshire’s Department of Environmental Services, Robert Varney previously served for 12 years as a NEIWPCC Commissioner (1989-2001), including a two-year term as our chair (1995-1996). In 2001, he joined EPA Region 1 as regional administrator, a post he held until 2009. Currently, Varney is executive vice president at Normandeau Associates, an environmental consulting firm.

We would be remiss in not noting that in 2012 we also bid a fond farewell to Roger Janson, who retired from EPA Region 1. Over the years, Roger attended multiple NEIWPCC Commission and Executive Committee meetings as an EPA representative and never failed to bring passion and a spirit of collaboration to the discussions.
more intimate setting allows the state and federal participants to speak directly about matters of mutual interest and concern—and the 2012 meetings featured many brisk exchanges of views and ideas. Case in point: the lively discussion of numeric nutrient criteria led by NEIWPCCs Susy King at the September Executive Committee meeting.

Such honest exchanges are critical to reaching an understanding among affected parties on complicated issues. Through our Commission and Executive Committee meetings, NEIWPCCC provides the ideal vehicles for the communication that is indispensable to our states’ shared pursuit of improved water quality throughout the region.

Purposeful Leadership

As the calendar approached October 18, 2012—the 40th anniversary of the date that the Clean Water Act officially became the law of the land—talk increased around the nation about the great significance of the CWA as well as the need to change the act in ways that reflect today’s environmental realities. But at NEIWPCCC, we’ve been talking about the CWA’s current shortcomings for a long time. In a column titled “An Act That is Getting Old” in a 2010 issue of our newsletter Interstate Water Report, Executive Director Ron Poltak wrote, “Those who created this statute and those who have worked to implement it over the years have much to be proud of. Now, however, we all must realize that in its present form, the CWA is simply no longer achieving water quality improvements as initially intended.” Ron listed the aspects of the CWA that are holding back progress on water quality, including its heavy focus on controlling point sources of pollution—a critical issue in 1972 and ensuing decades but less so today in light of the major progress on point sources.

At our September 2012 Commission meeting, Ron and NEIWPCCs Heather Radcliffe updated the Commissioners on efforts to reauthorize the Clean Water Act and spelled out the need for reforms that are essential if we are to ensure clean water is available to sustainably meet economic, social, and environmental purposes. We provided the Commissioners with an extensively researched policy paper that highlights the need for a new CWA which addresses the complex challenges not anticipated by the act’s original authors, including aging water and wastewater infrastructure, funding needs, nonpoint source program implementation, wetlands protection, emerging contaminants, and climate change. In a web page developed by NEIWPCCC in 2012 to mark the CWA’s 40th anniversary, Ron further clarified his stance, “The law is old, and so much has changed—in technology, science, and elsewhere. The problem is not that the Clean Water Act is not working; rather, the problem is that it can only accomplish what it was designed to do: reduce the direct discharge of raw sewage and other pollutants into our nation’s waters. For the multitude of other problems we face today as water quality program administrators, the act offers little support or resolution.”

As of the publication of this annual report, efforts in Washington aimed at reauthorization of the CWA had slowed. The reasons include a feeling among some that a push for reauthorization now, with Congress in such a divided, partisan state, could result in less effective legislation than the current CWA. It is a concern worth considering, but at NEIWPCCC, we remain committed to the reauthorization cause—and to working side-by-side with our member states as we work to represent them on this vitally important issue.

Throughout the year, NEIWPCCC kept a close eye on another matter in Washington of crucial interest to our states—the battles over the federal budget. Fiscal 2012 began with the White House and House of Representatives sparring over very different views of how federal monies
should be raised and spent. The standoff ultimately led to the automatic spending cuts on March 1, 2013, known as the sequester. The spending reductions are about $85 billion in fiscal 2013, and while some programs such as Social Security are excluded from the cuts, environmental programs are not exempt. NEIWPCC is already feeling the effects in the form of a small reduction in our core funding from U.S. EPA, and our member states are feeling the pinch as well. Throughout the year, Ron used his vast experience with the ways of Washington to keep our states updated on the budget developments in Washington to a degree they otherwise would not have been. His insights allowed the states to anticipate what was coming and prepare to the extent they could.

During the year, Ron and NEIWPCC Deputy Director Susan Sullivan also kept the states apprised of our efforts to form a congressional caucus in Washington to address natural resources issues of the Northeast. The support of our Commissioners, and particularly the region’s environmental agency commissioners, was crucial to the progress on the caucus effort (see page 8). In this and many other ways, fiscal 2012 was a remarkably busy and productive year for NEIWPCC’s leadership. Consider Ron’s activities in just one week in June alone: On June 7-8, he was in Washington for the State Environmental Protection in 2012 (STEP 2012) meeting convened by the Environmental Council of the States (ECOS); Ron joined the nation’s top state officials to discuss the challenges of implementing federal environmental programs. Several days later, he was in Chelmsford, Mass., for a meeting of the Committee on the Environment of the New England Governors’ Conference (which was absorbed into the Coalition of Northeastern Governors or CONEG in August 2012). At the NEGC COE meeting, Ron updated those present, which included most of the top federal, state, and interstate officials in the region, on NEIWPCC’s activities including the Northeast Regional Turf Fertilizer Initiative (page 43).

Ron’s work with other organizations also continued to enhance NEIWPCC’s ability to serve our member states. As co-chair of the Association of Clean Water Administrators’ Funding Task Force, Ron joined ACWA Executive Director Alexandra Dunn in representing ACWA at the well-attended “Water Sector Utility Sustainability: The Path Forward” forum in Washington, September 25-26, 2012. Organized by EPA, the workshop was aimed at improving understanding of the challenges and opportunities facing water and wastewater utilities as they seek to incorporate sustainability into day-to-day operations. Models for energy recovery, workforce development, and customer engagement were discussed as Ron and ACWA’s Dunn focused on identifying the roles of states in supporting utility sustainability.

It should be noted that in this time of financial austerity, NEIWPCC is taking full advantage of tools such as conference calls and web-based communications. But the value of face-to-face communication cannot be underestimated. In early fiscal 2012, for example, Ron and Susan traveled to Albany to meet with top state officials at NYSDEC to get a clear understanding of their priorities. In another example, NEIWPCC staff traveled in August 2012 to Vermont to meet with top New York and Vermont state officials to get clarity on the priorities of the Lake Champlain Basin Program, which NEIWPCC manages (page 44). At NEIWPCC, we are steadfastly committed to doing whatever it takes to succeed in the work for clean water.
Breakthrough on Caucus

In July 2012, we were excited to announce that the long process of establishing a congressional caucus to address natural resources issues of the Northeast had culminated in a pivotal step forward: U.S. Representative Michael E. Capuano of the 7th Congressional District of Massachusetts and U.S. Representative Richard Hanna of the 22nd Congressional District of New York had agreed to sponsor what is being called the Northeast Water, Air and Waste Management Caucus. The sponsorship puts the caucus firmly on the path to becoming a reality and to developing into a new, influential means of ensuring that our region’s water, air, and waste concerns receive recognition in Congress. The sponsorship marked a major success for NEIWPCC, which has led the effort to establish the caucus, in partnership with our sister interstate agencies, the Northeast States for Coordinated Air Use Management (NESCAUM) and the Northeast Waste Management Officials’ Association (NEWMOA).

The caucus, which we hope will bring together the states’ entire congressional delegation, will provide the states with a much-needed strong, bipartisan voice in Washington on natural resources issues. The caucus will give the states a new forum to regularly inform Congress of their shared challenges, such as the need to provide drinking water, wastewater treatment, and stormwater management at an affordable cost and in a manner that protects public health and the environment; the need to reduce air pollution from sources outside the caucus states that causes, among other things, mercury contamination of the region’s waters; and the need to provide adequate solid waste disposal capacity.

NEIWPCC has been working on this idea since May 2011, when the region’s six state environmental agency commissioners voted unanimously to move forward with establishing the caucus. We are now working with the congressional leadership and appropriate staff to establish membership, and determine the agenda, priorities, and schedule of caucus activities and discussions.

Productive Collaboration

While NEIWPCC’s Commission and Executive Committee meetings are the most obvious manifestation of our commitment to coordination and collaboration, our belief that working together is the key to progress is also seen in our work with other organizations. During the year, NEIWPCC staff played active roles in such organizations as the National Association of Clean Water Agencies, the Association of State Drinking Water Administrators, the Association of State and Territorial Solid Waste Management Officials, the Association of Clean Water Administrators (formerly the Association of State and Interstate Water Pollution Control Administrators), the Environmental Council of the States, and many more. Our staff attended meetings, participated in conference calls, led committees, and took part in decisions on the organizations’ actions and plans. This extensive commitment to inter-organizational communications and coordination significantly enhances NEIWPCC’s ability to help our member states make progress on the issues that matter to them and to have our states’ views on matters of environmental policy heard by lawmakers in Washington.

As chair of the New England Water Environment Association’s Government Affairs Committee, NEIWPCC Deputy Director Susan Sullivan (at right) organizes sessions in our member states that bring state lawmakers together with leaders of the water and wastewater communities. Here, she’s at the 2013 Clean Water Legislative Breakfast in Rhode Island with Janine Burke, executive director of the Warwick Sewer Authority and NEWEA’s Rhode Island state director.
The activities of NEIWPCC Deputy Director Susan Sullivan are particularly noteworthy in this regard. Her official roles include serving on the Research Council of the Water Environment Research Foundation, the leading independent scientific research organization dedicated to wastewater and stormwater issues; serving on the board of directors of the Interstate Council on Water Policy, a prominent national organization of state and regional water resource management agencies; and serving as chair of the Government Affairs Committee of the New England Water Environment Association, an organization of more than 2,100 water and wastewater professionals who volunteer to work together through NEWEA on a multitude of water-related initiatives.

Susan’s NEWEA work is multidimensional but the efforts are underpinned by a common goal—to foster open communication with the New England congressional delegation and state legislators on water pollution laws, guidelines, regulations, and programs. To this end, Susan played an influential role in bringing state and municipal leaders together for a forum at NEWEA’s Spring 2012 meeting that focused on municipalities’ debt issues and the concept of integrated wastewater, stormwater, and drinking water permitting. She also led NEWEA’s annual effort to convene receptions in the New England states that stimulate productive dialogue among state lawmakers and influential members of the water and wastewater communities; at the 2012 event in Boston, for example, federal, state, and municipal officials joined Susan and other representatives from the water arena to discuss such topics as the Massachusetts Water Infrastructure Finance Commission’s final report, which identified an estimated $21.4 billion gap in funding for the state’s water and wastewater infrastructure over the next 20 years. Susan also coordinated preparations for NEWEA’s Congressional Briefing in Washington on March 6, 2012, during which she and other NEWEA participants spoke formally and informally to Congressional leaders about water quality issues such as reauthorization of the Clean Water State Revolving Fund program and legislation to encourage green infrastructure.

In another activity of note, Susy King, NEIWPCC’s director of water quality programs, participated in the New England Regional Freshwater Forum, convened by the Johnson Foundation in Boston, May 30-31, 2012. The forum brought a select group of water leaders from New England together with experts from other parts of the United States to exchange ideas about how to advance the integration of drinking water, wastewater, and stormwater planning and management. It is at such events that discussions take place with potentially far-reaching impacts on NEIWPCCs member states—and through NEIWPCC, our states are ensured of having a place at the table.

Among the many NEIWPCC staff who are also very active in other organizations is Training Coordinator Don Kennedy, seen here participating in a meeting of NEWEA’s Collection Systems Committee held in March 2012 in our Lowell offices. During the meeting, Kennedy and the other committee members reviewed questions on NEWEA’s voluntary wastewater collections systems exam.
Position Statements and Comment Letters

When developing environmental policy, federal agencies accept and typically seek input that will enhance their effort to devise the most effective policy possible. At NEIWPCC, we have a long tradition of making our region’s voice heard. Each year, we send 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 represent the region’s views; each letter is developed by Commission staff with input from our Executive Committee and state staff. The result is a clear regional message that supports and augments any individual state submissions.

Many of the comment letters we send to Washington are sent directly to U.S. Environmental Protection Agency headquarters. In recent years, we’ve submitted comments on a wide range of issues, including the proposed rulemaking to revise the water quality standards regulations, EPA’s 2010 memorandum about establishing TMDL wasteload allocations for stormwater and creating NPDES permit requirements based on those WLAs, efforts to establish national emission standards for hazardous air pollutants from coal-fired and oil-fired power plans, and EPA’s approach to numeric nutrient criteria.

Notable submissions in fiscal 2012 included our comment letter on EPA’s draft report National Water Program 2012 Strategy: Response to Climate Change. (The first page of the letter is at right.) The letter was highlighted in Inside EPA’s Water Policy Report and our comments were integrated into the final version of the strategy (see page 39 for details). Another important
During 2012, we carried on our practice of periodically bringing two of our workgroups together for a joint meeting, which allows them to directly address issues of mutual concern. Here, our Groundwater and Source Water Protection Workgroup and our Onsite Wastewater Workgroup come together in July 2012 for a meeting in our Lowell headquarters. See page 41 for details on the discussion.

Group Approach

For decades, much of the work undertaken by NEIWPCC staff on behalf of our states has been driven by discussions within our issue-specific workgroups—and our commitment to the value of the groups is as strong as ever, if not stronger. Through our workgroups, representatives from the Commission’s member states regularly come together, frequently joined by staff from EPA, to exchange ideas and information and to find opportunities to work together. The process works because we take it seriously; each of our workgroups is coordinated by a NEIWPCC staff member with a high level of expertise in the group’s area of focus. In 2012, we conducted workgroups in water quality standards, TMDLs, nonpoint source pollution, stormwater, wetlands, drinking water, groundwater and source water protection, underground storage tanks, pharmaceuticals and personal care products, climate change adaptation, operator training and technical assistance, residuals, and onsite wastewater. All these workgroups met in-person or via conference call at least twice during the year, with the members discussing areas of common concern, innovative approaches to solving problems, and ways to cooperate to reach shared goals.

During the year, we also showed our commitment to the workgroup process in a different way: On April 23, 2012, NEIWPCC’s Tom Groves led a free webinar conducted by Commission staff on the function and capabilities of our workgroups and the important role workgroup members play in developing meeting agendas and in bringing ideas and issues to the table. We explained that workgroup members not only engage in productive discussions, they also collaborate on projects such as coordinating conferences and developing technical publications. More than 40 new and longtime NEIWPCC workgroup members attended the webinar, in which Deputy Director Susan Sullivan announced that fiscal 2013 would see the addition of two new workgroups, one focusing on collection systems, the other on wastewater certification. She explained that all our workgroups serve four specific roles: to help NEIWPCC meet our mission of serving and assisting our member states, to carry out tasks requested by NEIWPCC’s Executive Committee, to communicate issues to NEIWPCC staff, and to inform development of NEIWPCC’s annual workplans.

Workgroups are indeed an old tradition at NEIWPCC. But as the webinar made clear and the meetings throughout 2012 undeniably showed, they are a tradition worth keeping.
Change of Address

After housing our headquarters for some 14 years at the Boott Mills complex in Lowell, Massachusetts, it became clear in 2012 that a change was needed. We liked Lowell, but we needed a new home. We found it a half-mile away. On Monday, November 19, 2012, we began a new chapter in the life of NEIWPCC at our new headquarters in the beautifully renovated Wannalancit Mills.

The move brought a savings in rent while adding about 5,000 feet in office space. Importantly, we now have a room large enough to comfortably accommodate training sessions with as many as 40 participants—an exciting enhancement to the efficiency of our training program. And it’s not just training that benefits from the extra space. Already we’ve used the large room to hold meetings that have brought together more federal and state officials than could ever have fit into a room at our old location.

Making the move wasn’t easy, but we are now even better positioned to serve our member states. In this case, change was indeed a good thing.

Our new large conference room proves its worth as it easily accommodates the large group of participants in a certification class for Massachusetts onsite wastewater system inspectors. For details on our coordination of the Massachusetts Title 5 training and examination program, see page 29.

The packing officially over, it’s all smiles as NEIWPCC staff pause during the final moments in our Boott Mills offices. Left to right: Jennifer Sylvester, administrative assistant; Susan Sullivan, deputy director; Mark Taylor, information officer; Michael Jennings, director of water resource protection programs.

Quality Assurance

NEIWPCC has long placed a high degree of importance on the collection and utilization of sound and defensible environmental data. After all, if important decisions are being made based on a set of data, it’s critical to be absolutely certain of the data’s quality. In fiscal 2012, Michael Jennings, NEIWPCC’s director of water resource protection programs and our quality assurance program manager, made minor revisions to the Commission’s Quality Management Plan. The QMP describes our system for planning, implementing, documenting, and assessing data collection, and outlines our commitment to developing detailed, comprehensive quality assurance project plans (QAPPs) for projects.

A QAPP is a planning document, or blueprint, for an environmental data collection effort. It describes how data are to be collected, analyzed, assessed, stored, and reported. During the year, Jennings, with some support from other NEIWPCC staff, reviewed, edited, and approved 29 QAPPs, an impressive total. But while a QAPP details the planning and implementation of a project to ensure the information collected is robust, how can we be confident the project is executed according to plan? One way is by conducting field assessments to verify that approved procedures are being followed.

In 2010 and 2011, NEIWPCC conducted field assessments of several Lake Champlain Basin Program projects, and in October 2012, Jennings headed into the field to assess procedures being followed in the monitoring of man-made oyster reefs in the New York-New Jersey Harbor Estuary. (The New York-New Jersey Harbor and Estuary Program, in partnership with NEIWPCC, provided funding for the monitoring.) We’re pleased to report that all field work observed in connection with the oyster reef sampling effort was conducted in accordance with the approved QAPP and no non-conformances were noted. Fortunately, this has been the case for all NEIWPCC field assessments.
CONDUCTED TO DATE. REGARDING THE DISPARITY IN THE NUMBER OF QAPPs APPROVED BY NEIWPCc AND THE HANDFUL OF FIELD ASSESSMENTS WE’VE CONDUCTED SO FAR, IT IS IMPORTANT TO UNDERSTAND THAT MANY ENVIRONMENTAL DATA COLLECTION EFFORTS UNDERTAKEN BY OR ON BEHALF OF NEIWPCc DO NOT INVOLVE A FIELD COMPONENT. THEY MAY BE COMPUTER SIMULATION (MODELING) EFFORTS OR WHAT IS TERMED “SECONDARY DATA EFFORTS,” WHERE EXISTING ENVIRONMENTAL DATA ARE COLLECTED AND REPURPOSED TO DRAW NEW OR UPDATED CONCLUSIONS SEPARATE FROM THE ORIGINAL INTENDED USE OF THE DATA. ALSO, IT IS ONLY WITHIN THE LAST SEVERAL YEARS THAT NEIWPCc HAS EMBARKED ON OUR FIELD ASSESSMENT EFFORTS, AND WE ARE STILL WORKING TOWARD OUR GOAL OF ASSESSING A RELATIVE PERCENTAGE OF THE OVERALL ANNUAL TOTAL OF APPROVED QAPPs.

LOOKING FORWARD TO THE LATTER HALF OF 2013 AND BEYOND, REST ASSURED THAT NEIWPCc STAFF AND THOSE WHO REPORT TO US ARE COLLECTING SOUND AND DEFENSIBLE ENVIRONMENTAL DATA. WE CAN BE CONFIDENT THAT APPROPRIATE PROCESSES AND PROCEDURES ARE IN PLACE TO STAND BEHIND THE DECISIONS MADE WITH THIS INFORMATION.

FOR MORE ON OUR QA WORK AND TO ACCESS A COPY OF THE REVISED QMP, VISIT WWW.NEIWPCC.ORG/QUALITY.
**Annual Gathering**

Roughly a third of NEIWPCC’s staff work at our Lowell headquarters, with the other two-thirds working elsewhere within our seven member states. That makes it no minor challenge to bring everyone together for our annual two-day All-Staff Meeting every summer, but no one can argue with the results. Information is shared, knowledge gained, relationships strengthened—all benefits that accrue to our states. The more informed we are as a staff, the more unified we are as a team, the better we are able to do the work that needs to be done.

Executive Director Ron Poltak opened the 2012 meeting with a message: “I can’t say enough about how good of a job you’ve done,” Ron told the staff, “but I’m asking for more.” By “more” Ron meant not only more and even better work, but also more of a commitment by staff to share their work story with contacts outside the environmental world and thereby help fight the tendency in the United States to take environmental protection for granted. “It’s vitally important to share your role and your responsibility,” Ron said, “and to get others to understand the need to protect our ability to protect the environment.”

The meeting featured a wide array of fascinating staff presentations on adapting to climate change as well as breakout sessions on everything from improving time management to tips on managing contracts and contractors. Without question, it was time well spent.

Keenly listening at the 2012 NEIWPCC All-Staff Meeting are Karen Stainbrook and Erik Posner, two of our environmental analysts who work directly with New York State DEC’s Division of Water. For more on Stainbrook’s work during the year, see page 36.

Eric Howe, Ph.D., a NEIWPCC environmental analyst and the Lake Champlain Basin Program’s technical coordinator, speaks about the LCBP’s work with Vermont, New York, and Quebec to collaboratively address the need for greater flood resilience in the Lake Champlain Basin and Upper Richelieu River Valley.

A highlight of the meeting came when we announced that Meg Modley (left) was the recipient of NEIWPCC’s first-ever Annual Achievement Award. Meg, seen here with Deputy Director Susan Sullivan, is a NEIWPCC environmental analyst and the Lake Champlain Basin Program’s aquatic invasive species management coordinator. In his nomination of Meg for the award, Eric Howe wrote, “The past year has been extremely busy for the Lake Champlain Basin Program. Meg has served as a steady voice of reason throughout this period, particularly for the technical team, using her years of experience with LCBP and NEIWPCC as strong guidance for us. She is always willing to step up and work long days to help get the job done. We are very grateful to have her as part of our team.” Well said, Eric, and we couldn’t agree more. Congratulations, Meg, on this well-deserved recognition.
Water Quality Standards

Under the Clean Water Act, states are required to establish water quality standards, which EPA must approve. These standards designate water bodies for specific uses such as recreation, water supply, aquatic life, or agriculture; set water quality criteria to protect those uses by describing necessary chemical, physical, and biological conditions; and establish an antidegradation policy to maintain and protect water quality. It’s a complicated process to say the least, and NEIWPCC works to assist our states in any way we can. One way we do so is through our Water Quality Standards Workgroup, comprised of our state and federal partners. The workgroup provides a forum for identifying interstate water quality issues and developing solutions through regional communication.

At the group’s June 2012 meeting in our Lowell offices, one of the topics addressed was the triennial reviews underway in many states. Federal regulations require that at least once every three years states review their water quality standards and, when appropriate, adopt new or modified standards. EPA representatives at the meeting spoke about what they were looking for from the states. “That was helpful because EPA was very detailed about exactly what they expect,” said NEIWPCC’s Erin Jacobs, who coordinates the workgroup. “EPA wants to be involved from the beginning so that if a state is going in a direction that could be problematic, the agency can work with them early on to address any potential issues.”

Another subject of discussion at the workgroup meeting: EPA’s work on a proposed national rulemaking to clarify the water quality standards regulation; the agency’s goal is to improve the effectiveness of the standards process in restoring and maintaining the nation’s waters. Early in fiscal 2011, NEIWPCC staff coordinated with our member states to develop a regional comment letter on the proposed new rule. Our letter sought clarity on EPA’s potential regulatory revisions related to antidegradation implementation policies, designated uses, and triennial reviews. And we urged EPA to give the states sufficient opportunity to provide input during the revision process. At the June 2012 meeting, EPA representatives said the scope of the changes had been narrowed to focus on key program areas such as the definition of a variance. As this report went to press, EPA’s draft regulations remained
under review at the Office of Management and Budget; the rule is expected to be published in the federal register in October 2013.

Moving into fiscal 2013, the focus of the workgroup broadened to include EPA's new recommended recreational water quality criteria, which the agency published in November 2012. The criteria aim to minimize health risks for beachgoers and set contamination limits for *E. coli* and *Enterococci*. The idea is to improve public health protection by addressing a broader range of illness symptoms, better accounting for pollution after heavy rainfall, providing more protective recommendations for coastal waters, encouraging early alerts to beachgoers, and promoting rapid water testing. The recommendations don't impose new requirements on the states but serve as guidance to be used when states set their own standards to protect beachgoers.

**Nutrient Criteria**

As has been the case for several years, a major water quality issue in 2012 was nutrient criteria—that is, criteria that establish the levels of nitrogen and phosphorus a water body can tolerate and still meet its designated uses. Implementation of water quality standards for nutrients can help states limit nutrient over-enrichment in water bodies, a desirable goal since too many nutrients can lead to algal blooms, depleted oxygen levels, and fish kills. But the process of defining appropriate nutrient thresholds is complex. Moreover, while nitrogen and phosphorus concentrations can be indicative of a problem, environmental response indicators such as chlorophyll-a and secchi disk are seen by many states as better ways to determine if a nutrient impairment exists.

In our region, one state is pursuing an especially notable approach to resolving the issue. Maine has proposed a draft rule in which the determination of whether a water body attains water quality standards for nutrients is done by simultaneously evaluating numeric nutrient concentrations and environmental response indicators. The idea is to use nutrient concentration thresholds for such matters as water body planning and setting permit targets while using environmental response indicators to, among other things, determine attainment of designated uses and set restoration targets. In a December 2011 letter from EPA Region 1 to Maine DEP, EPA confirmed that this dual approach is acceptable. But the agency also suggested a number of changes to make the rule more transparent and assessments more consistent. To this date, Maine has not finalized its rule—and it remains a hot topic of discussion. "Everyone's waiting to see what happens with Maine," said Erin Jacobs, coordinator of our Nutrient Criteria Workgroup. Jacobs was among those who attended a March 2012 meeting on nutrients at the EPA New England Regional Laboratory in Chelmsford, Massachusetts, where state and tribal staff told the agency that they liked Maine's approach.

NEIWPCC is committed to assisting Maine and our other states on nutrient criteria issues and to making sure the states are fully informed on relevant national legal and regulatory developments. In 2012, we hosted a regional webinar to allow states to share new criteria development methods, and we are hosting a nutrient criteria-specific conference call in 2013. This is clearly a case where more information is needed, and we're glad to meet that need.

**Rhode Island Assistance**

For several years, NEIWPCC has been assisting in the development of numeric nutrient criteria for Rhode Island’s lakes, ponds, rivers, and streams. In 2010, NEIWPCC's Jane Sawyers began compiling all relevant existing lake data and investigated different approaches for criteria development. In 2011, she headed into the field, often accompanied by RI DEM interns or NEIWPCC's Katie DeGoosh and Mark Nimiroski, to gather lakes and river data never before collected in the state. Jane is now developing reports documenting the data collected in 2011 and the use of a unique statistical method that will determine if different types of lakes are important for nutrient criteria development. Based on observations during the 2011 field season, she implemented new field methods in 2012 to more accurately sample Rhode Island's streams. As the project moves toward development of draft criteria, work is continuing with the collection of additional river data and compilation and statistical analysis of lake data.

NEIWPCC's Jane Sawyers, who works out of the Providence offices of Rhode Island's Department of Environmental Management, collects data on Canonchet Brook in Hopkinton, R.I.
Total Maximum Daily Loads

In the water quality standards process outlined in the Clean Water Act, if a state finds a water body is not attaining the water quality standards that have been set for it (based on its designated uses), the waters are said to be impaired—and that triggers a specific course of action. For all impaired waters, states must establish a Total Maximum Daily Load for each pollutant causing the impairment. TMDLs establish the allowable pollutant load from all contributing sources—point sources and nonpoint sources—so applicable water quality standards will be achieved.

The strong turnout at the May 2012 meeting of NEIWPCC’s TMDL Workgroup is indicative of the continued high interest in TMDL issues in our region. More than 20 people took part, including staff from EPA and all seven of our member states. The meeting began with updates from each of the states on its activities related to TMDLs, leading to much talk about the work being done in some states on impervious cover TMDLs. That’s when the percentage of impervious cover—surfaces such as asphalt and concrete that don’t allow rainwater infiltration—in a watershed is used in a TMDL as a surrogate for stormwater-source pollutants in streams listed for biological impairment. During Connecticut’s update, CT DEEP’s Traci Iott spoke about the state’s development of a statewide impervious cover TMDL for 20 watersheds where the amount of impervious cover (IC) has negatively affected aquatic life. EPA’s Steve Silva said IC TMDLs are typically used for small urban watersheds where a stressor analysis identifies only IC, and he said Connecticut’s approach seemed sensible.

The positive mood at the meeting reflected the states’ growing confidence in developing effective and innovative TMDL approaches. In EPA’s update, the agency noted that the number of approved TMDLs in New England has in recent years consistently surpassed EPA headquarters’ targets and that the result could be increased funding. However, a legal development in early 2013 illustrated that the challenges associated with TMDLs are far from over. On January 3, a U.S. District Court in Virginia ruled that EPA exceeded its authority under the Clean Water Act in creating a TMDL (for a creek in Fairfax County) that regulates stormwater flow as a surrogate to control sediment. While the decision for now is only binding in the Eastern District of Virginia, the ruling drew the attention of our member states, which are concerned about the potential impact on EPA’s ability to approve impervious cover and flow-based TMDLs. The Virginia ruling will be a major topic of discussion at a joint meeting of our TMDL and Stormwater Workgroups to be held in the fall of 2013.

Another topic of great interest in the TMDL world is EPA’s work with the states to develop the TMDL 10-Year Vision, as it’s commonly called. The vision consists of six goals—prioritization, assessment, protection [prevention of impairment], alternatives [to TMDLs], engagement, and integration [across CWA programs and sister environmental programs]—and related actions to be implemented over the next decade to enhance the ability of the 303(d) program and CWA programs in general to achieve water quality goals. NEIWPCC’s Emily Bird, who now coordinates our TMDL Workgroup, participated in the 2013 National TMDL Coordinators Training Workshop where staff from EPA, 49 states, and organizations such as the Association of Clean Water Administrators engaged in talks to provide guidance in shaping the vision and identifying action steps. Based on preliminary discussions, we anticipate working with EPA to develop a framework to support our states in achieving the alternatives, engagement, and integration goals.
Long Island Sound TMDL

Where saltwater from the Atlantic mixes with fresh water from the Thames, Housatonic, and Connecticut rivers, you’ll find one of the most productive ecosystems on Earth—Long Island Sound. It’s home to more than 1,200 species of invertebrates, 170 species of fish, and dozens of species of migratory birds. But the Sound’s watershed, which includes parts of Connecticut, New York, Rhode Island, New Hampshire, Massachusetts, and Vermont, is home to more than 9 million people, and balancing all that human activity while maintaining a healthy ecosystem in the Sound is an immense challenge. Over the years, excessive algal growth prompted by nutrients from wastewater treatment plants, polluted runoff, and other sources has led to major concerns about oxygen depletion in the Sound.

During 2012, NEIWPCC staff continued to coordinate a workgroup in an ongoing effort to revise the Long Island Sound TMDL, one of the key vehicles for long-term, sustainable progress on the Sound’s water quality. According to the best available models, the current TMDL’s reductions will not result in meeting standards for dissolved oxygen in the Sound, hence the need for a revision. The Long Island Sound TMDL Workgroup members—representatives from the five largest states in the watershed, EPA, and NEIWPCC staff—have a challenge on their hands, but they are persevering. The workgroup continues to hold bimonthly conference calls to move the TMDL revision process forward.

In the meantime, EPA officials and the five states’ water directors signed an enhanced implementation plan in 2012 for the current TMDL. The plan has three main components: continuation of current implementation for point source wastewater, including facility upgrades and a nitrogen trading program in New York and Connecticut, and capping and monitoring nitrogen loads in the upper basin states; qualitative evaluation of stormwater and nonpoint source reduction efforts to date; and developing a quantitative tracking tool for future stormwater and nonpoint source reduction efforts. Since the signing of the plan, the Long Island Sound TMDL Workgroup has begun working toward development of the second component—an enhanced implementation report based on qualitative information provided by each state on its nonpoint source and stormwater nitrogen reduction efforts since the implementation of the original TMDL. The report is expected to be completed in 2013. In addition, a contractor is evaluating the feasibility and cost of low-cost retrofits for nitrogen removal at wastewater treatment plants in the upper Long Island Sound watershed. Low-cost retrofits are operational changes that will reduce total nitrogen but won’t entail significant capital costs or major structural changes. The contractor’s evaluation should be completed by April 2014.
Mercury

For the NEIWPCC Water Quality staff who have worked so hard on mercury issues over the years, an announcement early in fiscal 2012 was especially gratifying. In December 2011, EPA announced its Mercury and Air Toxics Standards, the first national standards to protect Americans from power plant emissions of mercury and toxic air pollutants such as arsenic, acid gas, nickel, selenium, and cyanide. The standards will go a long way toward slashing power-plant emissions of mercury, which so often ends up contaminating water bodies via the phenomenon of atmospheric deposition. In a post on the NEIWPCC website, NEIWPCC Executive Director Ron Poltak summed up our reaction. “It has been a long, arduous battle to get to this place, and finally, New England may see some relief,” Ron wrote.

“The mercury and air standards are strong, sensible safeguards that will protect our citizens from toxic mercury and other dangerous heavy metals. EPA is to be congratulated, and I am so pleased by their efforts to uphold scientific integrity and protect public health.”

The news culminated a long process for our staff. NEIWPCC’s Susy King, our director of water quality programs, played a pivotal role in the development of the influential Northeast Regional Mercury TMDL, which EPA approved in 2007, as well as a subsequent petition to EPA to convene a conference on reducing mercury pollution, which took place in Philadelphia in 2010. NEIWPCC then worked with in-region and out-of-region states to outline priorities for EPA action on an aggressive strategy to control mercury nationwide—precisely the type of strategy outlined by EPA in December 2011.

But our work didn’t stop there. NEIWPCC continues to coordinate mercury-related activities through our participation on the Environmental Council of the States’ Quicksilver Caucus. In 2012, Susy King helped develop the Caucus’s Third Compendium of States’ Mercury Activities, which provides information on state efforts in mercury monitoring, reducing mercury emissions and releases, and managing mercury in products. Susy also chaired a Quicksilver Caucus workgroup that delivered two national webinars for states on mercury TMDLs. “We wanted to educate states on their options if they were thinking of doing a mercury TMDL,” King said. “So we had presentations on mercury TMDLs that had already been completed, including ours [the Northeast Regional Mercury TMDL], and then some that were in the works. We covered a variety of approaches, including mercury TMDLs that were similar to ours as well as one done in California that had a much greater mining influence, which is totally different from the atmospheric deposition-based approach used in the Northeast, Minnesota, and New Jersey.”

Susy’s experience and expertise on mercury issues has elevated her to prominence nationally. She was among the experts that the U.S. Government Accountability Office interviewed for its January 2013 report examining the challenges EPA faces in addressing damage caused by airborne pollutants such as mercury. The GAO report recommends that EPA determine whether it can obtain in a timely manner the data needed to establish secondary National Ambient Air Quality Standards adequate to protect against the effects of acid rain and, if not, identify alternative strategies to do so. EPA agreed with GAO’s recommendation.

Wetlands

If anyone thought all the restrictions on development around wetlands meant we no longer needed to worry about them, a report released in early fiscal 2012 was a wake-up call. The U.S. Fish and Wildlife Service reported that between 2004 and 2009, the net wetland loss nationwide was 62,300 acres. And the word “net” is the key: While the rate of gains from reestablishment of wetlands increased 17 percent from the previous study period (1998-2004), the wetland loss rate increased 140 percent, easily offsetting the gains. As then-Secretary of the Interior Ken Salazar said at the time, “Wetlands are at a tipping point.”

NEIWPCC promotes regional understanding of national and regional wetland policies through our Wetlands Workgroup, comprised of wetlands staff from our member states. EPA, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the Natural Resources Conservation Service. At the September 2012 meeting of the workgroup, which is coordinated by NEIWPCC’s Theresa Portante-Lyle, state staff provided updates on wetlands efforts and issues in their respective states while federal participants briefed the group on various initiatives. EPA Region 1’s Trish Garrigan spoke about the agency’s Enhancing State and Tribal Programs (ESTP) Initiative, which aims to enhance EPA’s delivery of technical and financial support for state and tribal wetlands programs, with the overall goal of accelerating program development on a national scale. Garrigan asked for and received input from the states on how EPA
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can best identify state needs and support state programs.

During the year, 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 scientists to collaborate on improving how we biologically evaluate the health of the region’s wetlands. In wetlands bioassessment, plant and animal species, communities of species, and ecological processes are identified and used to indicate wetlands’ ecological integrity. Working in conjunction with NEBAWWG, Theresa Portante-Lyle developed and hosted a webinar series in 2012 that included presentations by state staff on wetland condition assessments, approaches to data analysis and management, and optimal strategies for data utilization. The webinars provided the states with a cost-effective way to get feedback on their respective assessment methods; the webinars also served as introductory training for a NEIWPCC-coordinated field demonstration of wetland condition assessment methods, held May 16-18, 2012, in Newburyport, Massachusetts. Roughly 30 people attended the workshop, in which regional wetlands experts demonstrated rapid condition assessments, biological assessments, and functional assessments in a variety of wetland ecological communities.

Wetland Monitoring and Assessment

When describing the condition of plant communities, it’s possible to use terms such as good, poor, or degraded, but they’re subjective. When your task is to evaluate restoration and mitigation efforts or prioritize sites for conservation work, it makes sense to use a more objective approach, which explains the growing interest in the wetlands world in Floristic Quality Assessments (FQAs). In FQA methodology, a panel of regional experts assigns to each native plant species what is called a coefficient of conservatism (CoC) between zero and 10. Non-native species get a zero coefficient, while species that colonize, for example, along the edges of parking lots and industrial sites also earn lower CoCs. Species that are more conservative in their requirements for stable native plant communities—that is, highly intolerant of disturbance—get higher coefficients.

Via NEBAWWG, NEIWPCC received EPA funding in 2010 to facilitate the development of a regional list of CoC values for the region’s vascular plants, with the goal being to develop a wetland monitoring and assessment tool for our member states. Nine botanists evaluated vascular plants and assigned CoC scores based on a species’ tolerance for anthropogenic disturbances, and a preliminary CoC list was developed. The list needs some fine-tuning, and in 2013, NEIWPCC’s Theresa Portante-Lyle, who’s overseeing the project, is holding a workshop with state staff to determine appropriate next steps.

In an exciting development, a paper about the project written by Theresa Portante-Lyle; Kerry Strout, who coordinated our wetlands work before leaving NEIWPCC in 2011; and Jason Bried, formerly of the Albany Pine Bush Preserve Commission, was published in the journal Northeastern Naturalist early in 2012. Northeastern Naturalist is a quarterly peer-reviewed and edited interdisciplinary scientific journal with a regional focus on northeastern North America, including Canada.
Monitoring

Monitoring is a critical step in the effort to improve water quality; you can't possibly know if a water body is meeting its designated uses unless you are vigilant in characterizing the waters, spotting trends over time, identifying emerging problems, and determining whether pollution control programs are working. And in our region, 2012 was an especially significant year in the monitoring arena.

Early in the fiscal year, NEIWPCC conducted a conference call to gauge our states' interest in incorporating lake bioassessment—which evaluates the biological condition of a water body—into state monitoring programs. Despite limited resources, our states decided to move forward, and in December 2011, NEIWPCC's Theresa Portante-Lyle coordinated a lake bioassessment workshop for representatives from our member states and EPA. Attendees considered objectives, discussed the benefits of working together to develop a regionally consistent approach to lake bioassessment, and shared assessment techniques that had already been applied in the Northeast.

The workshop put into motion a plan to conduct a pilot study alongside the second National Lakes Assessment, which is analyzing the condition of 904 lakes, ponds, and reservoirs across the lower 48 states. In a joint project of our states coordinated by NEIWPCC, researchers headed out in the summer of 2012 to collect samples not only for the NLA but also for a regional biomonitoring study with the goal of evaluating the effects of the greatest stressor to northeastern lakes—shoreline development—on the biotic community in a lake's littoral zone. Specifically, the researchers were testing a sampling methodology developed by the Vermont Department of Environmental Conservation, in which macroinvertebrates are collected from rocky littoral substrates as a means of evaluating the impact of development along lakeshores. Researchers are now working with the samples to analyze relationships between the condition of physical habitat and the response from the invertebrate community.

Another potential next step in the project involves GIS mapping. “The premise is that it would be useful for the states to have remote capabilities to assess the condition of physical habitat like a shoreline buffer, to assess what the current condition is, without having to do onsite assessments,” NEIWPCC's Portante-Lyle said. “The states have all this data that they collected alongside the NLA, which they could use to verify the interpretation they gather from a GIS map.” It’s an intriguing idea but one that’s still in the exploratory stage. NEIWPCC will continue to discuss the idea with our states in the months ahead.

Focus on Rhode Island

As we have for many years, NEIWPCC in 2012 assisted Rhode Island DEM by providing technical support to its water monitoring and assessment program. During the year, our staff who work directly with DEM's Office of Water Resources engaged in a wide variety of work. To cite just a few examples: They worked with the consulting and engineering firm TetraTech to develop a multimetric index to assess aquatic life uses using macroinvertebrate monitoring data; participated in the National Lakes Assessment; reviewed aquatic invasive species monitoring data from 103 water bodies to report on impairments due to non-native aquatic plants for the 2012 Integrated Monitoring and Assessment Report; and helped train volunteers from Save the Lakes to interact with the public as part of a pilot boat greeter program. But as usual, the most visual highlight was the work seen in the photo below—the staff's annual forays into the field to conduct water quality monitoring. At more than 60 river and stream stations in Rhode Island, NEIWPCC staffers Katie DeGoosh, Mark Nimiroski, and Jane Sawyers collected water chemistry and pathogen samples, took instream measurements of water quality parameters and flow, as well as subsampled the sites for algae and periphyton to support Rhode Island's development of nutrient criteria.

NEIWPCC Environmental Analyst Mark Nimiroski collects a water sample from Meshanticut Brook in Cranston, Rhode Island, as part of the Ambient River Monitoring program. During 2012, this important project produced data on the quality of water at more than 60 stream stations in the Pawtuxet, Pocasset, Moosup, and Hunt River basins.
Water Quality Partnerships

In 2012, NEIWPCC’s Water Quality staff in Lowell oversaw 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’ 2012 activities are provided here; please visit the organizations’ websites to learn more about them and their programs.

Hudson River Estuary Program

Since 1999, NEIWPCC has been providing staff and project management support to New York State Department of Environmental Conservation programs that work to protect, conserve, restore, and enhance the Hudson River and its estuary. At the Hudson River Estuary Program, a number of our staff work with NYSDEC’s Hudson River Fisheries Unit on work related to long-term sampling programs for anadromous fish throughout the estuary from New York City to Troy. Such was the case in 2012 as the staff initiated a three-year river herring spawning stock monitoring program.

This project was a priority due to concerns over coastal declines of river herring (alewife and blueback herring) stocks and the resulting management actions laid out by the Atlantic States Marine Fisheries Commission. The goal is to gather the biological data needed, such as sizes, sex ratios, age structures, and mortality rates, to determine if river herring populations exist at sustainable levels in the Hudson River. It will take several years to compile, compare, and analyze data, but if it’s concluded that there is not a sustainable fishery, the state would have to close all river herring fisheries, both commercial and recreational, in the Hudson River. During the 2012 field season, staff collected data from over 3,500 river herring at more than 100 sampling sites; age data were collected on more than 800 fish. Analysis of the new data, as well as age data collected in past years, is underway.

In other program activities, NEIWPCC supported numerous technical projects, including five small grants for projects related to flood response, mitigation, and future watershed resiliency. The selected projects aim to mitigate flooding and increase watershed and climate resiliency, protect and maintain healthy watersheds, and advance restoration of impacted streams and rivers for people and wildlife. Grants were awarded to the Village of Saugerties, Orange County Water Authority, Cornell Cooperative Extension of Columbia and Greene Counties, Town of Warwick, and Siena College.

Hudson River National Estuarine Research Reserve

NEIWPCC supports staff who work directly with the Hudson River National Estuarine Research Reserve, which is operated as a partnership between New York State and the National Oceanic and Atmospheric Administration. The reserve encompasses four distinct tidal wetland sites that are designated as field laboratories for estuarine research, stewardship, and education.

In one project of particular note, NEIWPCC’s Emilie Hauser and Daniel Miller worked on the Sustainable
In May 2012, students from Coxsackie-Athens High School plant vegetation as part of a project designed to stabilize the shoreline at the boat launch in Coxsackie, New York.

The work done by NEIWPCC staff at the HRNERR in fiscal 2012 included building and installing three low-cost eel ladders in Hudson River streams to increase crucial upstream habitat for migrating eels. Here, NEIWPCC’s Dan Miller and Sarah Mount install an eel ladder at Furnace Brook in New York’s Westchester County. More than 1,400 eels used the ladder in its first year.

Shorelines Project, which provides science-based information about shoreline management options. The project includes a demonstration site network that showcases ecologically enhanced shoreline restoration projects. In 2012, the Sustainable Shorelines team was actively involved in the design, planning, and implementation process at the Coxsackie Boat Launch. Natural forces and human activity had contributed to soil erosion and vegetation loss along the shore zone prior to the restoration. The Sustainable Shorelines team, with help from the New York State Office of Parks, Recreation and Historic Preservation and the Stevens Institute of Technology, stabilized the shoreline by constructing gentler slopes, installing a partial sill, and planting native vegetation. The ecologically enhanced shoreline withstood the forces of Hurricane Sandy only six months after installation.

Long Island Sound Study

For years, NEIWPCC has assisted 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 build support for its protection. In 2012, activities by our staff who work directly with LISS included developing and publishing the report Sound Health and the electronic newsletter Sound Bytes; managing the LISS website, including a new microsite highlighting 33 unique coastal areas; and organizing a pilot LISS stewardship event on Connecticut Trails Day.

In Lowell, NEIWPCC’s Erin Jacobs manages the LISS Enhancement Award Program; she coordinates a review team of LISS partners that develops RFPs for projects and reviews proposals, selects contractors, and then manages projects through to completion. In 2012, the award program funded three enhancement projects through NEIWPCC, including system-wide eutrophication model improvements, phase one of LIS embayment monitoring, and a LISS GIS needs assessment. On October 1, 2012, we initiated the process of implementing seven new enhancement projects, including one that involves monitoring climate change indices—also known as sentinels—at locations along the coastal boundary of the Sound. During the year, Erin also participated...
An alewife captured during monitoring in an area of the Peconic River where restoration work has allowed the fish to once again migrate upstream. Volunteers collect data on the fish before returning them unharmed to the river.
At NEIWPC, issues related to wastewater treatment have been a priority for more than 66 years. Through our Wastewater and Onsite Systems Division, we provide training that treatment plant operators need to effectively do their jobs and to maintain their certification—and the training needed if they aspire to management. We develop technical guides, coordinate workgroups, educate urban youth, and manage critical programs related to onsite (septic) systems. In 2012, the division’s responsibilities expanded to include underground storage tanks and pharmaceuticals and personal care products. It’s diverse work, but with one underlying goal—cleaner, healthier waters.

Training

For 45 years, NEIWPC has demonstrated an unwavering commitment to offering superior training for the men and women who are on the water quality frontline—our region’s wastewater treatment plant operators. Many states require training throughout an operator’s career and for good reason—training keeps operators current on treatment technologies and practices, industry trends, and safety issues. At NEIWPC, we are constantly striving to ensure our training programs meet operators’ needs.

In fiscal 2012, NEIWPC training staff attended conferences and trade shows and consulted with wastewater authorities in our member states before both our fall and spring training seasons—all to get a firm grip on the training needed in our states. The staff then developed a list of training sessions reflecting those needs and scheduled courses to take place in locations across the region. Once training got underway, our veteran in-house training coordinators—Don Kennedy and James LaLiberte—led many of our courses. But we also relied, as we always do, on expert instructors from the public and private sector to lead classes where their expertise is applicable.

It’s a process that’s worked for a long time and still works well. In fiscal 2012, our courses in the fundamentals, such as Basic Wastewater Treatment Operation, were well attended, as they always are. But we also saw heavy interest in classes such as Care of Emergency Generators and Extreme Weather Preparedness, reflecting the growing need at treatment plants to be ready when severe weather strikes. “The string of big storms we’ve seen in recent years has taken a toll on treatment plants,” said Tom Groves, NEIWPC’s director of wastewater and onsite programs. “It’s critical that personnel at wastewater and water treatment facilities understand what it takes to protect themselves and continue to provide treatment in extreme weather—and to respond appropriately when treatment capability is lost.”

As always, we spread the training around geographically, ensuring that treatment plant staff in each of NEIWPC’s member states had access to multiple educational opportunities—and access them, they did. Some examples: Our always popular Managers Forum, held in Hartford, Connecticut, in November 2011, drew 66 plant managers and state and federal agency staff to discuss everything from phosphorus removal to asset management; in Maine, 34 people attended our Care of Emergency Generators course in April 2012; 21 people turned out in May 2012 in Chelmsford, Mass., for our class covering new collection system requirements in Massachusetts and New Hampshire; our May 2012 course in Concord, N.H., on wastewater pathogens and troubleshooting sequencing batch reactors, led by well-known wastewater microbiologist Michael Gerardi, drew 33 participants; in New York, 34 people attended our Hands-On Microbiology for Process Control and Troubleshooting course in April 2012; in Rhode Island, 13 people took our complete 20-session course in basic wastewater treatment operation held over ten weeks in Spring 2012 in South Kingstown; and in May 2012 in Rutland, Vermont, our three-day program that prepares participants for the state municipal wastewater operator exam drew 18 students. In total, NEIWPC’s core regional training program provided 75 wastewater classes across NEWEA.
the region, training 1,588 individuals.

A course of special note during the year took place in Concord, N.H., where we conducted a two-day industrial pretreatment class in August 2012. What made the course unique was that it was supported in part by funding directed to EPA through Section 104(g) of the Clean Water Act, which provides for direct on-site assistance to operators at small community wastewater treatment plants that discharge less than 5 million gallons per day and serve populations of less than 10,000. Funding for the 104(g) program ceased in 2007, but in 2011, EPA Region 1 located unused 104(g) funds in other regions and redirected the monies to New England. In addition to supporting the Concord program, the funding was used to partially offset the costs of the Connecticut management training program (see page 28).

Beyond our regional training program, we also coordinated the other training efforts highlighted on the following pages, including important work in Maine (next page) and in Massachusetts (pages 29-30). We were also frequently contracted to deliver courses tailored to meet the specific needs of a single organization’s workforce. Clients in 2012 included the dairy company Garelick Farms, the Orangetown (New York) Wastewater Treatment Plant, Braintree (Massachusetts) Water and Sewer, the Stamford (Connecticut) Water Pollution Control Authority, and wire mesh-maker Riverdale Mills. At NEIWPCC, we believe in the value of training—and we do a lot of it.

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**Constructive Feedback**

While we’re proud of the success NEIWPCC has had in training, we are always looking for ways to improve. In 2012, NEIWPCC’s John Murphy developed a survey that we sent to everyone who took one of our training programs during the year. The goal—to evaluate the completeness, relevance, and effectiveness of our programs and to help us improve future offerings. To ensure a sizable response, we offered anyone filling out a survey a small discount on an upcoming NEIWPCC training session and entry into a gift-card raffle. Ultimately, more than 125 people returned surveys and provided important feedback in the process.

All the respondents had many positive things to say about our training, with 88 percent saying they intend to take another NEIWPCC training course in the future and 89 percent saying our programs are priced just right. Several respondents said they’d like to see more variety in training topics, and we are acting upon that suggestion, offering more hands-on, small-group training programs as well as new courses on emerging technologies and wastewater microbiology.

As a feedback tool, the survey worked very well, and it complemented the course evaluations we solicit from participants after every class. To offer the best training possible, it’s vital to understand your audience’s needs.
Meeting the Needs in Maine

Since 1985, NEIWPCC has managed the Joint Environmental Training Coordinating Committee (JETCC), which coordinates training for Maine’s environmental professionals. The two-person JETCC staff—NEIWPCC’s Leeann Hanson and Spring Connolly—is based in South Portland, Maine, but their focus is statewide. Through JETCC’s work, operators at wastewater and water treatment facilities across Maine get the training they need—and get it at a reasonable cost. JETCC, which receives very limited state funding, keeps costs down through extraordinary efficiency and a little help from its friends; many members of Maine’s water and wastewater communities volunteer to assist with JETCC classes or offer the use of their facilities for its programs.

In 2012, JETCC delivered multiple training programs on wastewater and drinking water topics, including multi-week wastewater treatment classes and one-day sessions on subjects such as water fluoridation, facility operation in cold climates, record-keeping and documentation for compliance, and basic blueprint reading. Many classes were filled to capacity: For example, JETCC’s December 2011 course in Brewer, which covered the impacts of water treatment practices on wastewater plant operations, drew 67 people. The training of operators in the skills of management continued to be a priority (see next page), while JETCC also assisted Maine DEP’s Non-Point Source Training Center with its courses and partnered with other organizations to run popular workshops for septic system installers. Altogether, JETCC directly coordinated or assisted with 55 training sessions that reached a total of 1,690 students. JETCC also conducted all administration, recordkeeping, and correspondence for Maine’s wastewater operator certification program, which serves Maine’s roughly 800 licensed operators.

All that work earned JETCC plenty of praise, including this comment in a July 2012 letter to JETCC Coordinator Leeann Hanson from Patricia Aho, Maine DEP’s Commissioner and a NEIWPCC Commissioner since 2011: “I am writing to voice my support and appreciation for the good work of the Joint Environmental Training Coordinating Committee,” Aho wrote. “It is truly impressive that each year JETCC trains approximately 2,000 environmental professionals. I know that they appreciate the frequency, statewide availability, affordability, and quality of the JETCC courses… I truly appreciate JETCC’s long-standing relationship with [Maine DEP] and the important training that JETCC provides to ensure protection of Maine’s environment.”
Lessons in Management

With it becoming increasingly apparent that management positions at many wastewater treatment facilities will become vacant as current managers reach retirement age, the need is real for training programs that prepare operators to assume the helm. Several years ago, NEIWPCC played a pivotal role in setting up and coordinating the Rhode Island Operator Boot Camp, a management training program for operators that has come to serve as a template for similar programs across our region and the nation. The Rhode Island Boot Camp is on hold since demand for managerial candidates in the state has been met for now. But most of our other member states have followed Rhode Island’s lead—with plenty of support from NEIWPCC.

In 2012, the management training program run by JETCC, NEIWPCC’s training arm in Maine, was conducted for a third straight year, with support from the Maine Wastewater Control Association, Maine Water Utilities Association, Maine DEP, and Maine DHHS. The Maine program is open to candidates from both wastewater and drinking water systems and, as in Rhode Island, the program features monthly training sessions on managerial topics such as media relations and budgeting. It’s also been remarkably successful, inspiring testimonials like this from Michael Courtenay, a participant from the Warren Sanitary District: “The management candidate school struck me as having an in-depth curriculum when I enrolled in it, but I was still surprised at the depth of the program,” Courtenay wrote. “It did a very good job of spending useful amounts of time on each topic and covering subjects that are pertinent to the role of managers. It was a great program that required a significant amount of effort and preparation to complete, but I was still able to work it into my existing schedule and work requirements.” In October 2012, a new group of 18 operators began their managerial education as the Maine program got underway for a fourth straight year.

Elsewhere in New England, NEIWPCC worked with MassDEP and the Massachusetts Water Pollution Control Association to launch a year-long management training program that is going strong, thanks in part to our assistance. In February 2012, a second round of the Massachusetts program began, with NEIWPCC staff once again helping to develop the training and conduct some of the sessions. However, in a change, we opened the Massachusetts management classes to not just the program participants but to anyone interested in taking the courses; the response was tremendous, with each class virtually filled to capacity. Also in 2012, NEIWPCC provided support and advice to the New Hampshire Department of Environmental Services and the N.H. Water Pollution Control Association as they concluded that state’s first Wastewater Management Candidate School. In Connecticut, the first year of the Connecticut Leadership Training Program began in October 2012 with 20 students; the program is being led by the Connecticut Water Pollution Abatement Association, with NEIWPCC and the Connecticut Department of Energy and Environmental Protection serving as cosponsors. And in Vermont, NEIWPCC is in the early stages of talks with the state’s Department of Environmental Conservation and the Green Mountain Water Environment Association about planning a management training program for operators.

All these efforts got a nice dose of publicity in the Fall 2012 issue of Clear Waters, the impressive quarterly magazine of the New York Water Environment Association. NEIWPCC’s Leeann Hanson, JETCC’s coordinator, appeared on the cover in a photo taken as she spoke to participants in the Maine program, and inside, the magazine featured an article by NEIWPCC’s Tom Groves, “The Management Revolution: Boot Camps for Operator Advancement on the Rise.” The article summarized the success of New England’s management programs and urged New York to develop something similar. Preliminary discussions to that effect are now underway between New York state officials, NYWEA, and NEIWPCC.
In Demand

In December 2011, NEIWPCC published a new edition of our Technical Report #16, commonly known as TR-16, which has long been one of the Commission’s most requested publications. The new TR-16 is similar to previous editions in that it covers in detail the important elements of wastewater treatment that must be considered in the design of wastewater treatment works. The content, however, has been completely updated to reflect current practices and to include advances in technology, nutrient removal, energy efficiency, and instrumentation. The intended audience for TR-16 includes engineers who design wastewater treatment plants, state regulators who review and approve designs, and municipalities that are soliciting professional design services for wastewater treatment facilities.

The new TR-16 is available in hard copy and on CD, and demand has been strong since its publication. In fiscal 2012, we received 61 orders for the printed version and 124 CD orders. For information on ordering a copy in either format, including a link for online purchasing, visit the TR-16 page on our website at www.neiwpcc.org/tr16guides.asp. The page includes a link to download a fact sheet we produced in 2012 that outlines, by chapter, some of the major changes in the new edition.

Massachusetts Program Management

Around the middle of the past decade, state budget cuts in Massachusetts put pressure on two programs of great interest and relevance to NEIWPCC—the Commonwealth’s extensive wastewater operator certification and training program and the state’s program for Title 5 Onsite Wastewater Training and Examination of System Inspectors and Soil Evaluators. Given our vast experience in both areas, the state decided to shift responsibility for both programs to NEIWPCC. While we admit there were some growing pains at the start due to changes we believed had to be implemented to make the programs more sustainable, we’re glad to report both programs are very much alive and well.

Under NEIWPCC’s leadership, the wastewater and Title 5 programs are successfully doing their part to ensure the waters of the Commonwealth are well protected from potential hazards associated with wastewater treatment and onsite (septic) systems.

In fiscal 2012, NEIWPCC coordinated 23 exam prep courses—serving 499 students—for the Massachusetts wastewater and operator certification program. Most courses were held at the Richard Alden Training Facility in Millbury, Mass., with NEIWPCC’s in-house instructors leading many of the programs. These are mostly in-depth courses offered over multiple weeks, such as Operation of Municipal Wastewater Treatment Plants (Grades 1-3), which NEIWPCC’s James LaLiberte conducted in six sessions over six weeks in both the fall and spring of the fiscal year. We also continued to coordinate the administration of the state’s computer-based wastewater operator certification exams and to administer the operator license renewal process. In fiscal 2012, that meant completing the enormous task of managing the renewal of some 5,500 operator licenses.
Our work during the year for the Title 5 program was also substantial as NEIWPCC staff processed several hundred renewal applications for Soil Evaluators and System Inspectors. We also coordinated and conducted three classes—one certification course for Soil Evaluators, two certification courses for System Inspectors, and one Soil Evaluator refresher session—for a total of 140 students. “The Soil Evaluator certification course is quite a lot to plan for and is logistically challenging as well,” said NEIWPCC’s Paul Spina, who coordinates the Massachusetts wastewater and Title 5 certification and renewal work. “But once the course begins and progresses from the classroom to the field, and you see the students’ attention and listen to the knowledge shared by the instructors during their presentations, it’s a very gratifying experience for all.” NEIWPCC works with the Massachusetts Health Officers Association and MassDEP in coordinating the Title 5 program.

### Onsite Systems

According to EPA, nearly one in four households in the United States depends on an individual septic system (also referred to as an onsite system) or small community cluster system to treat their wastewater. These systems often work perfectly well. As EPA stated in its 1997 Response to Congress: “Adequately managed decentralized wastewater systems are a cost-effective and long-term option for meeting public health and water quality goals, particularly in less densely populated areas.” Unfortunately, an estimated 10 to 20 percent of these systems malfunction each year due largely to inadequate maintenance, causing pollution to the environment and creating a risk to public health.

Through NEIWPCC’s Onsite Wastewater Workgroup, we bring NEIWPCC and EPA staff together with state onsite wastewater disposal directors to identify and respond to problematic onsite issues. In 2012, the group’s July meeting began with a discussion that also featured members of NEIWPCC’s Groundwater and Source Water Protection Workgroup; the two groups share a concern about the impact of malfunctioning onsite systems on groundwater, and the joint discussion allowed for a direct exchange of information and views that simply wouldn’t happen in any other setting. (For more on the joint discussion, see page 41). The Onsite group then met separately to discuss among other things NEIWPCC’s work to meet the need for training in onsite systems. In May 2012 in Bridgewater, Massachusetts, we conducted a Title 5 seminar that provided system inspectors, soil evaluators, installers, designers, and operators with the latest information on technologies and practices in the onsite field. And in Millbury, Massachusetts, in November 2012, we put on a small systems operator course that provided people just entering the field with instruction in the basics of onsite wastewater treatment.

The workgroup also discussed the Annual Technical Education Conference held by the National Onsite Wastewater Recycling Association (NOWRA) in
Providence, Rhode Island, in April 2012. Members of the Onsite Workgroup, including its coordinator, NEIWPCC’s John Murphy, had assisted the conference’s planning committee, and the consensus at the July meeting was that the event had been a complete success. NOWRA is just one of several associations related to onsite systems in which NEIWPCC staff participate; Murphy and Tom Groves are also very active in NOWRA’s regional chapter, the Yankee Onsite Wastewater Association (YOWA), and in the onsite efforts of the New England Water Environment Association and the Water Environment Research Foundation. Through these associations, NEIWPCC helps our member states stay on top of the latest issues and innovations in the onsite world.

In a key development late in the fiscal year, the EPA Decentralized Memorandum of Understanding Partnership, in which Tom Groves participates, released a series of papers highlighting the benefits of decentralized wastewater treatment systems. Each paper focuses on one of four topic areas, demonstrating how decentralized treatment can be 1) a sensible solution, 2) cost-effective and economical, 3) green and sustainable, and 4) protective of the environment, public health, and water quality. “We embraced being involved with this project because decentralized systems often don’t get the respect they deserve,” said Groves, who along with members of our Onsite Workgroup reviewed the papers as they were being developed. “When designed, installed, and maintained properly, they get the job done very well. Yes, there’s plenty to be said for municipal systems with extensive collection systems and large, complex treatment plants, but that doesn’t work everywhere. As these papers show, decentralized systems are a very effective long-term solution.”

Working Together

In addition to our Onsite Wastewater Workgroup, the staff of NEIWPCC’s Wastewater and Onsite Systems Division coordinate two other workgroups of great significance to our member states—our Regional NPDES Workgroup and our Residuals Workgroup.

The NPDES Workgroup brings together state and EPA staff whose work is connected to the National Pollutant Discharge Elimination System program. The NPDES program requires industrial, municipal, and other facilities to obtain permits if they discharge pollutants directly into “waters of the United States,” and the result of this permitting has been significant improvements to our nation’s water quality. The program is of great importance to our member states, and through our workgroup, NEIWPCC facilitates communication and information exchange among NPDES staff. There are always various perspectives at the workgroup’s meetings since not all of our states administer their own NPDES permit programs; Massachusetts and New Hampshire are not currently delegated by EPA to issue NPDES permits.

On May 8, 2012, more than 20 people, including many members of our NPDES Workgroup, gathered in our Lowell offices for a workshop coordinated by NEIWPCC’s John Murphy. The morning session focused in part on NetDMR, a free web-based tool for regulated Clean Water Act permittees to electronically complete and submit discharge monitoring reports (DMRs) to EPA via a secure Internet application. The tool is designed to improve data quality, save paper, and reduce costs. EPA Region 1 has been implementing NetDMR in New Hampshire and Massachusetts since July 2009 with approximately 25 percent of the states’ 520 NPDES permittees now using NetDMR. EPA is currently working on a rule that would require electronic reporting of DMR data.

In the afternoon session,
the focus shifted to EPA’s development of a framework for integrated municipal planning. Under an integrated approach, EPA and states would use the flexibility within EPA regulations to encourage municipalities to evaluate how best to meet their Clean Water Act requirements while prioritizing on the most urgent wastewater and stormwater projects. An integrated approach would foster efforts to identify long-term, cost-effective solutions as well as more sustainable innovative approaches. The May meeting illustrated NEIWPCC’s commitment to encouraging open dialogue on integrated planning. Nine months later, in February 2013, we held another important meeting on the subject, but this time with the members of NEIWPCC’s Executive Committee. More efforts will follow into 2013 as we work to help our states stay ahead of the curve on the integration effort.

Through our Residuals Workgroup, NEIWPCC works to promote compatibility among state programs related to residuals, the organic, nutrient-rich residues removed from wastewater during the treatment process. Residuals can be disposed of in essentially three ways—incineration, landfill, or land application. (If they’re applied on land, and have been appropriately treated for such use, residuals are typically referred to as biosolids.) The Residuals Workgroup is comprised of NEIWPCC and EPA staff along with the residuals coordinators of our states’ environmental agencies, and for years, members have discussed a litany of complex regulatory issues.

In 2012, the workgroup monitored implications from EPA’s revisions to sludge incinerator regulations and talked about how to manage non-traditional residuals—paper fiber, ash, residuals from seafood processing—under the sludge regulations. But a big topic throughout the year was EPA’s decision to pull back from funding its biosolids enforcement program. The agency’s Office of Enforcement and Compliance Assurance explained the decision by saying rules governing biosolids are self-implementing, with straightforward performance standards and strong recordkeeping and reporting requirements, and that many states have their own enforcement programs in place. In response, the North East Biosolids and Residuals Association agreed that current biosolids management, if done in accordance with regulations, presents minimal risk, and that in New England, state biosolids regulatory programs are strong and help ensure public confidence. Through our workgroup, the states have a vehicle to help ensure their biosolids programs stay strong long into the future. New York City’s Amended Combined Sewer Overflow Consent Order, the city’s Department of Environmental Protection must reduce CSOs from its sewer system to improve water quality in the surrounding waters. This is entailing an enormous amount of work and multiple projects such as sewer separations and the building of CSO abatement facilities. And it’s the job of two NEIWPCC staff members based in New York City—Linda Allen and Paul Kenline—to monitor the efforts to comply with the consent order. This involves many tasks including reviewing and commenting on project plans, attending progress meetings, conducting field inspections at sites where work is underway, and analyzing long-term control plans to assess water quality standards compliance.

A fascinating example of the projects the staff monitored in 2012 is the work being done to improve water quality in Brooklyn’s notoriously polluted Gowanus Canal. A key aspect of the project is to add pumps that will increase flow through a flushing tunnel system that brings clean water into the Gowanus from a channel a mile away. Upgrades are also being made to decrease the frequency and intensity of CSO events at the head end of the canal. And a CSO screening device is being installed to remove solid materials from the discharge when CSOs do occur. It’s a lot of work and it’s not cheap: The upgrade is estimated to cost $160 million. But when it’s completed in 2014, water quality in the Gowanus will be improved through an increase in dissolved oxygen concentrations and a decrease in floatables and coliform levels.

Also in 2012, NEIWPCC’s Lindsey Walaski continued to work closely with New York State DEC’s New York City Municipal Compliance Chief in monitoring the progress and reviewing and commenting on New York City’s Nitrogen Reduction Program. Lindsey’s responsibilities include working with NYSDEC to regulate the planning and progress of remedial actions established by the First Amended Nitrogen Consent Judgment, which requires NYCDEP to implement upgrades at eight of the city’s wastewater treatment plants to reduce nitrogen discharged to Long Island Sound and Jamaica Bay.
Underground Storage Tanks

For anyone who works on issues related to underground storage tanks, fiscal 2012 got off to an exciting start: For the first time since federal regulations for USTs were promulgated in 1988, EPA proposed significant revisions. The agency’s desired changes increase the emphasis on properly operating and maintaining UST equipment through such measures as adding secondary containment requirements for new and replaced tanks and piping and adding periodic operation and maintenance requirements for UST systems. While some of the changes are complex, the underlying goal is simple—to improve prevention and detection of UST releases, one of the leading sources of groundwater contamination.

After the release of the proposals, NEIWPCC’s Jaclyn Harrison, who manages all aspects of our tanks program, worked with members of NEIWPCC’s Tanks Workgroup to draft a regional response, which we submitted to EPA as a comment letter on April 13, 2012. “The overall tone of the letter was quite positive,” Jaclyn said. “Our member states were in favor of all the proposed revisions. But in some cases, the states thought EPA wasn’t being strict enough, considering advances in tanks technology.” Our states suggested that secondary containment requirements be expanded to include primary tank top fittings, underground vent and vapor recovery system piping, and underground piping associated with field-constructed tanks and airport hydrant systems, especially since this is common practice already in many states. Our letter also urged EPA to reconsider the monthly opening of sumps because this is difficult in our region’s winters and causes problems that could be avoided by implementing annual sump inspections combined with monthly inspections of sump sensor readouts. We made other recommendations as well related to flow restrictors in vent lines, compatibility with biofuels, repairs, and monitoring. Given all our comments, and the many from other entities, it is no surprise that as of the writing of this report, EPA had yet to release its final version of the new regulations.

As its involvement with the comment letter process implies, NEIWPCC’s Tanks Workgroup is one of our busiest and most committed workgroups. The group, which is comprised of representatives from UST, Leaking UST (LUST), and State Fund programs in our member states as well as EPA, met three times during the year in our Lowell offices. One of the meetings involved members of the Brownfields Workgroup of our sister interstate agency, the Northeast Waste Management Officials’ Association (NEWMOA). The groups discussed why their programs need to work together. “Twenty-five percent of brownfields funding is supposed to go to tanks cleanups,” Harrison said, “and it’s way underutilized.” At the workgroup’s other meetings during the year, the discussion was wide-ranging, covering everything from EPA’s grants process to the National Tanks Conference (see next page).

Training was also central to our work on tanks during the year. In conjunction with EPA’s Office of Underground Storage Tanks and a planning team of federal and state UST representatives, NEIWPCC staff coordinated two national webinars for UST inspectors. The first, which focused on high-throughput facilities such as truck stops, attracted some 250 live participants; the live attendance climbed to more than 330 for the second webinar, which focused on automatic tank gauges. During the year, we also for the first time conducted an in-person inspector training session that included a site visit. Forty-four people attended the session in Windsor Locks, Connecticut, in which the group visited a gas station to see firsthand how testing of its USTs is conducted.

In a final note on our tanks work, we received early in fiscal 2012 a gratifying letter from MassDEP Deputy Commissioner Gary Moran. In response to research and a webinar conducted by NEIWPCC to help MassDEP assess concerns of the regulated community about the
National Gathering

For three days in 2012, the city known as the “Gateway to the West” was the place to be for the nation’s underground storage tanks community. On March 19-21, St. Louis played host to the 23rd National Tanks Conference and Exposition, and judging by the number of attendees—and the feedback—it was a tremendous success. NEIWPCC staff, and Jaclyn Harrison in particular, led the development of the event, which attracted well over 600 attendees—engineers, contractors, consultants, and state, federal, and tribal representatives—and featured sessions covering numerous UST topics including operator training, remediation technologies, private tank insurance, backlog reduction strategies, and alternative fuels.

Joining NEIWPCC in sponsoring the conference were EPA’s Office of Underground Storage Tanks (OUST), the Association of State and Territorial Solid Waste Management Officials (ASTSWMO), and Missouri’s Department of Natural Resources and Petroleum Storage Tank Insurance Fund.

Highlights included the keynote address by Ronald Brand, who served as EPA OUST’s first director and adapted the franchise model to the UST program while incorporating the concept of Total Quality Management (TQM). He offered a unique perspective on how franchising and TQM set the UST program on a successful trajectory and how the tanks community can benefit from TQM concepts in dealing with current challenges. NEIWPCC was thrilled to have Brand at the conference. As one attendee put it quite simply, “He was outstanding.”

Other comments were equally rewarding. “One of the best conferences you’ve put on in the 15 years I’ve been coming,” wrote one attendee. “Another excellent conference,” wrote another. “This conference is critical in providing communication among stakeholders in the UST universe. The face-to-face interaction cannot be replaced with any other format.” While nice to read that all our work had paid off, NEIWPCC wasted no time in moving forward. Extensive preparations are ongoing for the next National Tanks Conference, to be held in Denver, Colorado, September 16-18, 2013.
WASTEWATER AND ONSITE SYSTEMS

Pharmaceuticals and Personal Care Products

It’s been well known for more than a decade that small amounts of pharmaceuticals and personal care products (PPCPs) are turning up in waterways across the country. The PPCPs pass through humans and farm animals and end up at wastewater treatment plants that aren’t designed to remove the chemicals. But questions remain over just how much of a threat PPCPs pose to the environment and public health—and what can be done to minimize the potential hazards.

To help our member states address these concerns, NEIWPCC coordinates a PPCP Workgroup that brings together the leading state, federal, and academic staff in our region who are working on the complicated issues surrounding PPCPs in our waters. In the group’s discussions during the year, several priorities emerged: The group is exploring how a water system that wants to test for PPCPs could actually do so—that is, what laboratories, methods, and collection procedures are already in place that would allow such testing. A matter relevant to everyday Americans is also being explored. “We’re interested in home water purification systems like Brita devices,” said NEIWPCC’s Jaclyn Harrison, who coordinates the workgroup. “It’s important to determine if they have any value in removing PPCPs.” A third priority—the potential contamination of groundwater by cytotoxic chemotherapy drugs. This is a major issue in our region, especially in Massachusetts and Rhode Island, where legislation has been introduced that would require cancer patients undergoing chemotherapy to collect their bodily wastes for hazardous waste disposal.

At the PPCP Workgroup’s meeting in our Lowell headquarters in August 2012, a man who has pushed for passage of the Massachusetts and Rhode Island bills appeared as a guest speaker. Jim Mullowney, founder and CEO of Pharma-Cycle, Inc., spoke to the workgroup about his company’s kits that cancer patients can use at home to collect and dispose of bodily wastes. Also on the meeting agenda, as he frequently is, was the U.S. Geological Survey’s Patrick Phillips, one of the leading experts on PPCPs in the country. Phillips, who works out of the USGS offices in Troy, New York, presented preliminary results from a study on hormones and pharmaceuticals entering the environment via septic systems in New England and New York State.

As with most of NEIWPCC’s workgroups, our PPCP Workgroup boasts many members who have been with the group for a long time and bring an immense amount of experience to the table. Left: Nicholas Anastas, formerly with MassDEP and now with EPA Region 1. Anastas is a widely acknowledged expert in the area of green chemistry. Right: The U.S. Geological Survey’s Patrick Phillips, one of the nation’s leading researchers on PPCPs.

In fiscal 2012, NEIWPCC published three issues of LUSTLine, the nationally distributed publication that for nearly three decades has been keeping state and federal UST regulators, consultants, contractors, and tank owners informed on UST and LUST activities, cleanup fund issues, spill remediation, and prevention technologies. The December 2011 issue examined the impact of extreme weather on UST sites and the need for emergency preparedness.

Commonwealth’s evolving UST program, Moran wrote, “In particular, I would like to thank and commend the work done by NEIWPCC’s Jaclyn Harrison in support of this effort. Her idea of using a webinar forum as well as the background work she did to prepare for the webinar contributed significantly to the successful outcome of this review… While we still have months of work ahead of us before the UST program is fully developed and implemented, the support provided by NEIWPCC has been very useful in moving us forward at a key stage of this project.” Kind words, Deputy Commissioner Moran, and greatly appreciated.
In the meantime, the news on PPCPs in the environment just keeps coming. A study published in the journal *Science* in February 2013 found that fish living in water with trace amounts of human medication exhibit hyper, anti-social, and aggressive behaviors as well as overeating. In an *E&E News* article on the study, USGS researcher Dana Kolpin said, “I think people are starting to understand that pharmaceuticals are environmental contaminants.” The more we learn, the more that appears to be the case.

**New York Support**

For many years, NEIWPCCC has employed staff who work directly with New York State DEC’s Division of Water. As of fiscal 2012, these staff members now fall under the umbrella of NEIWPCCC’s Wastewater and Onsite Systems Division. Their work encompasses a multitude of important responsibilities, from assisting with TMDLs to administering grants programs, and all of the work provides critical support to the Division of Water in its efforts to protect and conserve New York’s waters. Space doesn’t permit us to highlight the 2012 achievements of all these staff members in this report, but the work of NEIWPCCC’s Karen Stainbrook provides a good example of the staff’s accomplishments.

During the year, Karen worked with DOW staff to create a series of informative web pages about blue-green algae, otherwise known as cyanobacteria. Blooms of these algae, known as Harmful Algal Blooms or HABs, occur worldwide when excess nutrients cause the bacteria to grow rapidly. The blooms spread across a water body’s surface and can be harmful to people and animals, causing skin irritation, gastrointestinal symptoms, liver and neurological damage, asthma-like symptoms, and even death in livestock and pets. The web pages Stainbrook helped develop provide a wide range of information, including advice on what to do if you encounter a HAB and the latest updates on New York water bodies with blue-green algae bloom notices and water bodies with a history of such notices. Karen also worked on an internal guidance module that provides an easy-to-navigate, interactive means of guiding DOW staff through the steps necessary to identify blue-green algae blooms and respond to calls about them.

It was all impressive work, and the media took notice. In New York and Vermont, multiple television stations reported on the blue-green algae web pages, which also received nationwide attention through an Associated Press article that appeared in newspapers across the country.

NEIWPCCC’s Karen Stainbrook worked with NYSDEC’s Division of Water to develop web-based blue-green algae resources for use by DOW staff and the public.
Youth and the Environment

In the summer of 2012, NEIWPCC and our returning intern Eryka Reid once again coordinated the Youth and the Environment Program at the Lowell wastewater treatment facility. The EPA-funded program provides area youths with summer employment and environmental education. For six weeks, five local high school students worked daily at the wastewater plant, helping with everything from laboratory operations to landscaping. They also participated in classroom instruction on environmental topics and took weekly field trips to such destinations as the MWRA’s Deer Island Sewage Treatment Plant and the New England Aquarium in Boston. Aside from a hiatus in 2008 and 2009 due to a lack of funding, NEIWPCC has coordinated the Lowell YEP every year since 1990 with help from EPA, the Lowell wastewater facility, the City of Lowell, and the Career Center of Lowell. We are pleased to report EPA funding is in place to conduct the program through 2015.
While the newest of NEIWPCC's three central divisions, our Water Resource Protection Division encompasses some of our most important work. Among the staff's responsibilities is the work we're doing related to climate change, an issue of growing concern in our region and across the world. The division also includes vital programs and projects in the realms of drinking water, groundwater and source water protection, stormwater, and nonpoint source pollution. Our extraordinary staff at the Lake Champlain Basin Program also falls under the umbrella of Water Resource Protection—a division focused on working with our member states in a multitude of ways to protect, manage, and preserve our region's water resources.

Climate Change

Recent intense precipitation events in our region, such as Hurricanes Irene and Sandy, have led many to argue that we're already experiencing the impacts of climate change. While climate scientists warn against attributing any one storm to climate change, they also tell us that, due to climate change, the Northeast states can expect more of these types of extreme weather events in the future. In fact, many recent studies have shown that these types of intense precipitation events have already become more common in our region.

An increase in intense precipitation events is just one of many climate change projections for our region that require attention. Many current issues in the clean water world—aging infrastructure, funding needs, nonpoint source pollution, and energy use—will be exacerbated by climate change, and all uses of water, including agricultural, municipal, industrial, and ecological, will be affected. Effective, sustainable water management cannot ignore climate change impacts, and at NEIWPCC, we're committed to considering resiliency to climate change and future stressors in all our efforts.

Much of NEIWPCC's work on the matter occurs through our Climate Change Workgroup, which was formed in 2008 and consists of staff from our seven member states, EPA, the U.S. Geological Survey, NOAA, and academia. After a hiatus in meetings due to staff changes at NEIWPCC, the workgroup's August 2012 meeting was full of new energy and ideas as NEIWPCC's Nick Cohen took the reins as workgroup coordinator. "State updates were a big piece of the meeting because the group hadn't met for almost a year," Nick said. "It was a chance to reenergize, share lessons learned, and touch base again with the states on where they were in terms of adaptation. Several states had recently or were soon to release adaptation reports and other adaptation work so they were highlighting those and updating the other states on their progress. The group also brainstormed on opportunities for NEIWPCC to support their efforts. Our workgroups provide a great forum for this type of information sharing."

During the meeting, the consulting firm Tetra Tech delivered a presentation, which the workgroup members had requested, on the Northeast Pilot Climate Change Stream Network Monitoring Project; the study is analyzing climate change impacts on freshwater medium-high gradient wadeable streams in New England and New York. Also at the meeting, the group proposed that NEIWPCC host a climate change adaptation workshop, and plans are ongoing to hold such a workshop in fiscal 2013. In February 2013, NEIWPCC hosted another workgroup meeting, which featured presentations on EPA's regional Climate Change Adaptation Plan, the Northeast Climate Science Center, and varied approaches to state climate change adaptation workshops. Other topics of discussion: storm preparedness, emergency response, and resiliency, as

A graphic in the January 2013 draft of the National Climate Assessment, which by law must be updated and sent to the president and Congress every four years, shows that between 1958 and 2011 the amount of precipitation in very heavy events—that is, the heaviest 1 percent of all daily events—increased across the nation and particularly in the Northeast, where the increase was a stunning 74 percent.
they relate to climate change.

As part of our services to the workgroup, NEIWPCC staff also participated in various workshops and webinars on climate change, reviewed reports on climate change policy and impacts to water resources, and provided workgroup members with summaries of the information learned. “State staff are usually unable to attend other states’ adaptation workshops,” Cohen said, “so we provide an important role in attending these meetings and sharing information between states at forums like workgroup meetings.”

Our work on climate change during the year also included the submission of a comment letter on EPA’s draft National Water Program 2012 Strategy: Response to Climate Change. Comments were developed on behalf of our member states using feedback from NEIWPCC’s Climate Change, Drinking Water Administrators, and Groundwater and Source Water Protection Workgroups. Submitted to EPA in May 2012, the letter got attention: The news service Inside EPA published selections of the letter in its Water Policy Report. And most importantly, the final version of the strategy incorporated many of our suggestions, including our request that interstates—namely NEIWPCC and other similar organizations receiving Clean Water Act Section 106 funds—be noted in the strategy as having an important role to play in climate change-related efforts.

Drinking Water

While issues related to the Clean Water Act continue to be a top priority at NEIWPCC, we are also invested in facilitating information exchange and fostering collaboration between our member states on topics related to the Safe Drinking Water Act—the main federal law that ensures the quality of our nation’s public drinking water and protects its sources from contamination. Such contamination can come from many places: humans, animals, and even natural conditions, such as particular geological features. NEIWPCC supports our member states in their work with EPA and drinking water systems to make sure national health-based standards for drinking water are achieved.

Through NEIWPCC’s Drinking Water Administrators Workgroup, we bring together state drinking water staff and representatives from EPA for discussions on improving drinking water management and water resource programs to increase public health protection. The workgroup’s first fiscal 2012 meeting, held in November 2011, was influenced by the Halloween nor’easter that left millions in our region without power. The group discussed state drinking water-related responses to extreme weather and focused in particular on the states’ approaches to boil-water orders during sustained power outages.

The workgroup’s February 2012 meeting included discussion of State Revolving Fund utilization strategies and climate change-related impacts as well as a continuing dialogue about the workgroup’s priorities. EPA’s publication of the Third Unregulated Contaminant Monitoring Rule (UCMR 3) largely guided the direction of the group’s May 2012 meeting. Under the 1996 Safe Drinking Water Act amendments, EPA is required to issue, every five years, a new list of up to 30 contaminants to be monitored by public water systems in order to establish background data for future regulatory efforts. “Some of the contaminants on the list are of particular concern and interest for our states, such as 1,4-dioxane, chromium-6, and 1,2,3-trichloropropane,” said NEIWPCC’s Nick Cohen, who coordinates the workgroup. “Our states shared potential sampling and regulatory approaches to the various contaminants on the list as well as current conditions in their states.” Another topic of discussion: the Revised Total Coliform Rule, which modifies the original rule’s approach to monitoring for microbial

John Felix, MassDEP, and Regina Lyons, EPA Region 1, listen to a presentation during a meeting of NEIWPCC’s Climate Change Workgroup.
contamination in a distribution system by testing for total coliform and E. Coli.

At the end of the May meeting, the state workgroup members asked NEIWPCC to conduct a survey of how states handle disciplinary action for non-compliant public water system operators. NEIWPCC staff coordinated with workgroup members to develop a survey based on nuances of the disciplinary process in each state. Our staff distributed the 12-question survey among our seven member states and, with the help of the Association of State Drinking Water Administrators (ASDWA), on a nationwide basis. A total of 25 states responded. By the end of the fiscal year, the surveying was done and results were being compiled, and in March 2013, we circulated to the workgroup our draft report summarizing the survey results and identifiable trends and highlighting unique disciplinary approaches found in some states. Now complete, the report has been distributed to interested parties through the workgroup and ASDWA and is available on NEIWPCC’s website.

At the workgroup’s October 2012 meeting, the state members asked NEIWPCC to explore another topic: drinking water vending machines. We are now following up on that request by looking into how states approach regulating the machines and compiling information on the companies operating in our region. We expect to present the workgroup with our analysis in late fiscal 2013.

Throughout the year, NEIWPCC staffers Jennifer Donnell, Martha Nadeau, and David Welch provided direct, hands-on support to the Maine Department of Health and Human Services’ Drinking Water Program. Nadeau provides technical support to the program’s Compliance and Enforcement team while Welch assists program staff in meeting requirements under the Public Water Supply Supervision program, the Drinking Water State Revolving Fund program, and other areas as required by amendments to the Safe Drinking Water Act.

As fluoridation coordinator, Donnell monitors daily and monthly fluoride data for all 65 public water systems (PWSs) that fluoridate. These data are entered into the Water Fluoridating Reporting System at the U.S. Centers for Disease Control and Prevention and are used to track the quality of water fluoridation nationwide. Donnell also focuses on emergency preparedness, which in 2012 meant ensuring PWSs are resilient to weather events such as flooding and drought. She collaborated with several agencies to craft a drought contingency preparedness guidance document. Jennifer is also helping with preparations for requirements in the Reduction of Lead in Drinking Water Act of 2011, which calls for lower levels of lead in all drinking water system components. The Maine Drinking Water Program is making considerable effort to assure all of the roughly 1,800 PWSs statewide are educated and prepared for compliance with this national law, which was signed on January 4, 2011, and will be effective January 4, 2014.

With assistance from NEIWPCC staff, Maine’s public water systems are getting prepared for the requirements of the Lead Reduction Act, set to go into effect in January 2014. The Berwick Water Department, for example, has stock on hand, including this brass fitting with an NL (no lead) marking.
Groundwater and Source Water Protection

Maintaining a clean and dependable water supply requires a commitment to protecting water supply resources. And in our region, where water resource protection areas and issues stretch across state lines, it also requires working together. NEIWPCC provides an effective vehicle for doing so: our Groundwater and Source Water Protection Workgroup. The group brings together state and EPA staff on a regular basis to coordinate policy development and groundwater and source water management efforts throughout the region. Frequently, the group is joined by regional partners, such as the Groundwater Protection Council and American Groundwater Trust.

In the workgroup’s meeting in early fiscal 2012, pesticides were a topic of concern. Workgroup members heard a series of technical presentations covering chemical control of aquatic invasive species and EPA’s new general permit requirements associated with pesticide applications in the vicinity of water bodies. The workgroup also reviewed a compilation of member-state regulations for controlling the impact of pesticide applications on source waters and deemed that, for now, the states’ efforts on protecting water supplies from pesticides are effective.

Workgroup discussions in April 2012 shifted to electronic records and tools for groundwater and source water protection efforts, such as mapping programs offered by Google and geographic information systems (GIS). These mapping programs can be used to track and maintain data about land features and human activities that lead to pollution of water supplies. Such mapping can improve source water protection measures throughout the region.

NEIWPCC fulfilled a unique and important role in July 2012 by hosting a joint meeting of our Groundwater and Source Water Protection Workgroup and our Onsite Wastewater Workgroup. “We brought together staff from both workgroups to discuss the topic of discharging water treatment residuals to onsite septic systems,” NEIWPCC's Nick Cohen said. “It’s a way to break down silos. The Groundwater and Source Water Protection Workgroup had identified the topic as one of interest, and we were able to provide a valuable forum for discussion since we have the Onsite Workgroup as well.” Workgroup members from both sides of the topic shared information on their state’s regulations, challenges, and lessons learned. NEIWPCC staff subsequently developed a matrix of state regulations on the topic as an informal summary of the conversation for the states.

During the July meeting, the workgroup identified the proposed National Groundwater Monitoring Network as a subject of interest. Workgroup coordinator Nick Cohen remembered that interest when he attended the Association of State Drinking Water Administrators’ annual meeting several months later. “A speaker from EPA headquarters presented on the proposed network,” Cohen said. “He was able to connect me with a speaker in our region, who spoke about the network at the workgroup’s November 2012 meeting.” The November meeting also included discussions on groundwater and source water protection concerns related to stormwater management, cyanobacteria, and artificial turf. These issues continue to be explored in 2013 as do newly-identified topics such as state assistance with local zoning control for wellhead protection areas and source water protection integration from the state level to the local level.
Nonpoint Source Pollution

Through Section 319 of the Clean Water Act, EPA provides grant money to states, territories, and tribes to support activities to mitigate nonpoint source pollution—that is, contamination of our waterways and groundwater that cannot be connected to a specific point source such as a pipe discharging effluent from a wastewater treatment plant. Rather than coming from such an identifiable source—upon which targeted measures can be taken to control the pollution—NPS pollution can come from anywhere: from motor oil that isn’t properly disposed of, from lawns that are overfertilized, from pet waste that isn’t picked up, and so on. The sources of NPS pollution are diffuse, and that makes controlling it an extraordinary challenge. But control it, we must: EPA identifies NPS pollution as the leading source of water quality impairment in the country.

Unfortunately, the §319 program, as originally conceived, could only do so much. After all, it was intended to be a pilot program to solicit voluntary use of best management practices by landowners that Traditions of Success

If you arrived late as the 2012 Nonpoint Source Pollution Conference got underway in Portsmouth, New Hampshire, and were looking for a seat, you could have found one—but it wouldn’t have been easy. Turnout was extraordinary for the annual event, which drew nearly 180 participants from state, federal, and municipal government; the private sector; academia; and watershed organizations. Held over two days in mid-May, the conference featured a wide range of sessions covering topics such as structural BMPs, fluvial geomorphology, urban restoration challenges, prioritization and planning tools, and approaches to tackling unregulated stormwater.

As she has for several years now, NEIWPCC’s Clair Ryan coordinated all preparations for the conference, which was cosponsored by NEIWPCC and the New Hampshire Department of Environmental Services, with EPA Region 1 also playing a key role. Beyond the educational sessions, highlights of the event included three field trips from which attendees could take their pick: a tour of BMP installations on nearby urban streams; a boat tour of Great Bay, the focus of a closely-watched nitrogen pollution source study; or a visit to the University of New Hampshire Stormwater Center with the center’s director, Thomas Ballestero, a NEIWPCC Commissioner. Another highlight: the keynote address by Eric Eckl, founder of Water Words That Work, a non-profit organization that helps environmental organizations and government agencies develop effective communication programs. Eckl stressed the importance of communicating to the public without technical jargon, talk about “clean water,” he said, not “water quality.” The conference ended with a panel discussion of economic perspectives on green infrastructure; the moderator, EPA’s Margherita Pryor, dubbed the panel’s members as the preacher—Andrew Reese of AMEC Environment and Infrastructure, the professor—Robert Roseen of the UNH Stormwater Center, and the prophet—Cameron Wake of UNH. It was, as you can imagine, a memorable conversation. Almost as soon as the 2012 conference ended, planning began for the 2013 edition in Burlington, Vermont. In 2014, Rhode Island will serve as the host state for the 25th edition of the conference.
produce NPS pollution. To address the shortcomings, EPA has been involved since 2011 in developing new §319 programmatic guidelines—and that process was very much on the minds of the members of our NPS Workgroup in fiscal 2012. NEIWPCC’s Clair Ryan coordinates the workgroup, which is comprised of NPS program managers from New England, New York, and New Jersey, and throughout the year, Clair worked with workgroup members on drafting a regional comment letter addressing areas of concern that we anticipated would be in the new guidelines. Consequently, when EPA released its draft §319 guidance in November 2012, we were ready. On December 13, 2012, NEIWPCC sent a letter on behalf of our member states to EPA headquarters.

In the letter, we agreed that revisions to the guidelines were necessary, but we expressed concern that some areas of the draft guidance would have the unintended effect of slowing progress toward remediation of NPS pollution. Among other issues, our states were concerned with the strict partition between implementation funds and program funds as well as the potential for EPA to review states’ watershed-based plans at the end of the development process. “The states aren’t necessarily opposed to EPA reviews but they’re worried about the timing,” Ryan said. “What they don’t like is the possibility of EPA coming in at the end of the long process of drafting a plan and raising concerns that should have been addressed early on.” Our comments seemed to mirror the many others that EPA received; all told, the agency got public comments from 36 states and territories as well as other state and national organizations and stakeholders. As this annual report was being prepared, EPA released its final §319 guidelines, and Ryan and the workgroup began the process of perusing the changes and looking for ways to work together and leverage resources to comply with the new guidance.

The NPS Workgroup focused of course on many other issues during the year, including our work to reduce nutrient runoff from fertilized lawns (see story at left). Another topic of discussion: the Natural Resources Conservation Service’s National Water Quality Initiative, through which NRCS is providing funds to help farmers implement systems to reduce contaminated runoff from agricultural lands. State and EPA staff discussed ways to improve information-sharing and cooperation with NRCS as the initiative moves forward.

Talking Turf

The NEIWPCC-led Northeast Voluntary Turf Fertilizer Initiative continued to move forward in 2012, with two especially significant gatherings during the year. In May in Boston, NEIWPCC hosted two one-day meetings that brought federal and state staff together with representatives of turf fertilizer manufacturers and biosolids processors to discuss our draft of fertilizer and labeling formulation guidelines and identify ways we might improve the guidance.

The meeting marked an important step for the initiative, which began in 2011 when the six New England state environmental agency commissioners asked NEIWPCC to work with the states and fertilizer stakeholders to develop comprehensive regional guidelines aimed at reducing nutrient runoff from turf fertilizer. Nutrients from a number of sources—including turf fertilizer—are washed off land and into bodies of water by rain and snow, and once in the water, can contribute to excessive algae and plant growth, throwing natural systems and aquatic communities out of balance.

NEIWPCC’s Clair Ryan worked with our member states in 2011 and 2012 to draft the guidelines that were considered at the Boston meetings. The meeting on May 30, 2012, focused on the guidelines for the formulation and labeling of synthetic turf fertilizers; on May 31, the focus shifted to implications of the guidelines for natural, organic, and biosolids-based fertilizers. Participants offered much constructive criticism, all of which is being considered as Clair works on final revisions with state staff. Progress has also been made on another set of guidelines, which relate to turf fertilizer application practices. In March 2013, we held stakeholder meetings in Providence, Rhode Island, and Portsmouth, New Hampshire, to get feedback on the draft application guidelines, and we got plenty of input, mostly positive. Participants included state staff, lawn care companies, sports turf managers, academic specialists, municipal groundskeepers, and even some of the turf fertilizer manufacturers who attended the May 2012 meeting. Their suggestions are being weighed as we work toward our goal of having final drafts of all guideline documents completed by late 2013. The turf initiative partners will also be working on distilling the complex user guidelines into a simple and understandable version for homeowners.
Stormwater

Like all states across the nation, NEIWPCCs member states must confront water quality impairments caused by polluted stormwater runoff. Rainwater and snowmelt that cannot or does not soak into the ground travels over impervious land surfaces, transporting various pollutants—chemicals, sediments, nutrients, pathogens, and more—into water bodies. Stormwater management is especially important in urban areas where impervious roads, parking lots, and rooftops dominate the landscape.

During fiscal 2012, our states’ stormwater programs focused heavily on developing and implementing the next generation of stormwater permits, particularly Municipal Separate Storm Sewer System (MS4) permits, while paying careful attention to the pending Massachusetts and New Hampshire MS4 permits to be issued by EPA. (A redrafted New Hampshire MS4 permit was released for public comment in February 2013.) Our states also expressed interest in improving the use of stormwater permits to implement TMDLs. At the April 2012 meeting of NEIWPCCs Stormwater Workgroup, which is comprised of state and EPA stormwater coordinators, much of the talk was in fact about permits—though that’s nothing new. “A portion of each meeting is always set aside for state and EPA updates,” said NEIWPCCs Clair Ryan, the workgroup’s coordinator. “Updates mostly relate to where the agencies are in the process of updating, renewing, and implementing various state and federal permits.” Our states also discussed the effects of the 2010 census. Because Phase II MS4 permit coverage is required for census-defined urbanized areas, the boundaries of MS4s can be redrawn every time a new census is done. This can mean an expansion of the boundaries of existing MS4s or, in some cases, a city or town becoming a regulated MS4 for the first time.

In May 2012, Ryan attended a national meeting in Baltimore for stormwater staff where EPA updated states on the federal stormwater program. The discussion covered the finalized Construction General Permit written by EPA for all nondelegated states and the delayed stormwater rulemaking, which will expand the regulated universe of MS4s and regulate post-construction runoff for new development and redevelopment projects. EPA also led a discussion about the TMDL/stormwater permit nexus, which has been a focus of attention at NEIWPCC and within our states. In May 2011, we submitted a comment letter on our states’ behalf expressing concerns about a controversial 2010 EPA memorandum on TMDL implementation through stormwater permits. At the national meeting in May 2012, EPA announced that it was planning to revise both the 2010 memorandum and the 2008 TMDLs to Stormwater Permits Draft Handbook.

In one respect, 2012 was no different than previous years: Funding for municipal stormwater programs remains a challenge in our region. To learn more about one possible solution, Clair Ryan participated in EPA’s stormwater utilities workshop in October 2012 in Greenland, New Hampshire. By initiating a stormwater utility, municipalities or stormwater management districts can collect fees—based on impervious area or some similar metric—to fund stormwater reduction and treatment efforts. Stormwater utilities can be an effective local-level mechanism to provide sustainable funding to municipal stormwater programs, but in New England relatively few such utilities have been established compared to some other parts of the country. But our states are intrigued, and so are we. “We’re interested in seeing what role NEIWPCC can play in improving adoption of stormwater utilities,” Clair said. “It will be an ongoing discussion.”

Lake Champlain Basin Program

NEIWPCCs longstanding and productive relationship with the Lake Champlain Basin Program continued in earnest in fiscal 2012. While the LCBP works in partnership with government agencies from New York, Vermont, and Quebec as well as private organizations, local communities, watershed groups, and individuals, all its staff are NEIWPCC employees—and NEIWPCC staff in Lowell manage the program’s personnel, contract, grant, and budget tasks. It’s an arrangement that’s been in place for 20 years, and it continues to work well.

As they do every year, our staff at the LCBP conducted an extensive range of water quality, education and outreach, and cultural heritage and recreation programs in 2012. Among the most notable achievements was the staff’s critical work on flood resiliency. After the Spring 2011 floods in Lake Champlain and the Richelieu River Valley, Vermont Governor Shumlin and Quebec’s then-Premier Charest asked the LCBP to collaborate with Quebec, Vermont, and New York as well as U.S. federal partners to develop a report containing recommendations for flood resilience policies and management strategies that can reduce the impact of future floods. To gather input for the report, the LCBP
coordinated two workshops in 2012—one in Québec in February, the other in May in New York—followed by a two-day flood resilience conference in Burlington, Vermont, in June. The conference participants, which included local, state, and provincial officials; legislators; federal partners; NGOs; and members of the public discussed steps needed to improve flood resilience, explored potential policy recommendations, and considered public education efforts. NEIWPCC’s LCBP staff, and Eric Howe and Stephanie Castle in particular, then led the development of the 93-page report, which was published in April 2013 in both French and English. The report includes 15 detailed recommendations including the need to identify fluvial erosion hazard areas and establish consistent floodplain development standards.

Other highlights during the year included the August release of the important and impressive 2012 State of the Lake and Ecosystems Indicators Report. NEIWPCC’s LCBP team of Howe, Castle, and Meg Modley took the lead in developing the report, and Ryan Mitchell and Elizabeth Lee Newman undertook the graphic design. The report updates policymakers and the public on the condition of Lake Champlain and its watershed. The LCBP released a print edition of State of the Lake as well as an online version (at right), which includes all the print content as well as supplemental material and additional French translation. As for what the report has to say about the state of Lake Champlain, it’s clear that while progress has been made on such matters as reducing mercury levels in fish, significant challenges remain. Excess phosphorus, for example, remains a concern throughout the lake.

A complete list of the LCBP’s 2012 accomplishments would also include the completion of yet another successful season of its Boat Launch Stewards program, which aims to reduce aquatic invasive species infestations in Lake Champlain and inform boaters about spread prevention. But there’s much more than we can possibly mention here. For a comprehensive look at the LCBP’s activities, visit its recently revamped website, www.lcbp.org, where you can access both the State of the Lake and flood resilience reports.
Massachusetts Support

Our Water Resource Protection team also includes Richard Chase, who assists in managing the MassDEP Division of Watershed Management’s Quality Assurance Program, in support of Clean Water Act data collection, water body health assessment, and TMDL development. Richard reviews standard operating procedures and quality assurance project plans for Division of Watershed Management (DWM) field monitoring projects. His activities in 2012 also included conducting field and laboratory quality control testing of new dissolved oxygen/temperature data loggers, drafting guidance documents on the Massachusetts Consolidated Assessment and Listing Methodology (CALM), validating/finalizing DWM water quality probe and chemistry data, and drafting a DWM data standard for data timeliness and accessibility. It’s all important work and he does it incredibly well. In nominating Richard for NEIWPCC’s 2012 Annual Achievement Award, MassDEP’s Richard McVoy wrote, “Richard is pretty much single-handedly responsible for ensuring that any data produced by the MassDEP Watershed Planning Program is of the best possible quality.” In the photo seen here, taken in June 2012, Richard is taking multi-probe measurements in a stream in western Massachusetts.
Communications and Outreach

Since 1955, when NEIWPCC sent its first quarterly newsletter to nearly 1,000 recipients around the world, the Commission has made it a priority to develop resources that educate people about the water and wastewater challenges in our member states. While printed products have long been a mainstay of this effort, NEIWPCC now also relies extensively on such tools as our website, an e-newsletter, and social media to inform the environmental community and the public about issues and initiatives. NEIWPCC also engages in activities to bring lessons about water to a younger generation.

Interstate Water Report

In 2012, NEIWPCC continued to push to continually improve our printed newsletter Interstate Water Report—to make it more relevant to our member states, more useful, more timely, and more successful in delivering information that our states need. And we remained firmly committed to a defining feature of IWR that has been a key to its success since the publication of the very first issue in 2003—that is, to use the techniques of journalism to impart information in the form of a story. There's nothing wrong with a typical newsletter, one that concisely recounts an organization's achievements. But at NEIWPCC, we believe our states get enough of those. With IWR, we offer something different. We offer stories about people, places, problems—and solutions.

Consider, for example, the June 2012 issue, seen at right. The lead article, written by IWR Editor Stephen Hochbrunn, NEIWPCC’s communications manager, examined in detail the growing trend among water and wastewater treatment plants to get at least some of their energy from solar power. The story introduces us to compelling characters such as Todd Melanson, the environmental compliance manager at the Chelmsford (Mass.) Water District who had the drive, passion, and perseverance to pull off the large and striking solar installation at the town’s Crooked Spring Water Treatment Plant. We learn about the work being done by state and federal agencies to support the development of renewable energy in the water and wastewater sectors and about the decisions that plants must make when they begin going down the renewable road. We get the other side of the story too, as we hear from energy experts who urge that facilities be made as energy-efficient as possible before solar or any other type of renewable energy is pursued.

Of course, the issue contained much more—NEIWPCC’s Clair Ryan wrote about how America’s infatuation with green lawns has led to excessive fertilization, resulting in runoff that degrades the water quality in our lakes and streams; Clair explained how NEIWPCC is working to alleviate the problem in our member states through our leadership of the Northeast Voluntary Turf Fertilizer Initiative. NEIWPCC’s Richard Chase shared his well-articulated and convincing thoughts on the need for timeliness and accessibility standards for environmental data. And as with most issues of IWR, we included a book review; despite our high hopes for The Big Thirst, a new work on water from acclaimed author Charles Fishman, we gave the book mediocre marks.

Producing such content takes a commitment to the value of the printed word in an increasingly digital age. It
takes time. It takes reporting, research, and plenty of writing. But the results are worth it. IWR offers something more to readers, and in doing so, engenders a greater understanding of water issues in our region and of the challenges still faced by NEIWPCC and our member states. Shortly after publishing the June 2012 issue of IWR, we received a voicemail from Michael DiBara, who for years has led MassDEP’s efforts to cut energy use at water and wastewater plants. “Great job on the article,” DiBara said. “Overall, very well written. Told a good story.” Based on that analysis, we’d gotten the job done. Delivering a good story that imparts valuable information is our goal with every IWR article.

IWR is distributed at conferences and other events and mailed to more than 3,100 people, including our Commissioners, all the members of our workgroups, and federal and state lawmakers throughout the region. To get on our mailing list to receive IWR free of charge, send an email to mail@neiwpcc.org. The current and past issues are available online at www.neiwpcc.org/iwr.

In November 2012, IWR Editor Stephen Hochbrunn spent two days in the New York City area reporting on the water-related impacts of Hurricane Sandy. At one point, he caught up with the crew seen here pulling boom from the site of an oil spill at a marina in Nassau County. The New York reporting formed the basis for an IWR special report published in 2013 that examined the impacts of extreme weather on water infrastructure and water quality, the extensive efforts required by the water community to recover from damages caused by storms like Sandy, and the work being done in our region to prepare for a future of rising seas and more potent weather events.

Digital Complement

Since 2009, we have extended our ability to deliver news about water issues and NEIWPCC through distribution of our email newsletter, iWR. The content is entirely different from the printed IWR; the articles are shorter, with an emphasis on quickly getting to the point—critical if your aim is to grab the interest of someone racing through a crowded email inbox. Taking into account the needs of time-pressed email readers,
we’ve structured iWR so the version that arrives via email features condensed versions of an issue’s stories. Readers click on links to be directed to the complete version of any story that catches their eye. It’s important to note these links don’t lead to a page with that story alone; rather, they land the reader on the story of their choice as it’s embedded in the fully developed iWR. This allows readers to scroll through the entire issue and encourages browsing of stories outside a reader’s immediate interest that may be more relevant than initially realized. The iWRs emailed in fiscal 2012 delivered on our commitment to make each issue better than the one before. We were pleased with analysis from our email newsletter distribution service that showed a consistently high percentage of recipients not only opened the emailed iWRs but also clicked through to the longer versions of stories. We also appreciated the occasional positive feedback. After distributing the February 2012 iWR, we received this email from Albert Curran, co-founder of the environmental consulting firm Woodard and Curran and a NEIWPCC Commissioner from 1996 to 2012: “Content writing and format, especially the use of a type size that is easily read on an iPhone, is excellent. Well done.”

To sign up to receive iWR in your inbox, email us at iwr@neiwpc.org or fill out the form at neiwpc.org/iwr/iwr-email.asp, where we also provide an archive of previous editions.

Web Work

Given our website is increasingly the first place where people turn to learn about NEIWPCC and to access work products such as our technical reports, we continue to prioritize on making the user experience both pleasant and productive. During the year, NEIWPCC’s Mark Taylor developed and implemented further improvements to site navigation, layout, and appearance; technical work included search engine optimization, improved smartphone compatibility, and cleanup of the site’s structure and web standards compliance. Users during the year would have noticed a wide range of other improvements, including a major redesign of the section on our training programs as well as updated content on pages throughout the site. Making sure all the information on our site reflects the latest developments is an endless task—and one that gets our full attention.

User data generated by Google Analytics show that what we’re doing is working:

- In fiscal 2012, our website had 45,117 unique visitors—that is, individuals who are counted only once, no matter how many times they visit a site. The website’s popularity can be attributed to a number of factors including improved search engine optimization and our growing presence on social media.
- The number of pages per visit was 3.61. Credit this to, among other things, easier navigation, quicker page loads, and the broad improvements to content.
- Duration of the average visit to our site: 3 minutes, 36 seconds. The improved user experience and greater relevance of site content no doubt influenced the length of the stay.
- Overall, site traffic and usage were up about 15 percent over fiscal 2011.

NEIWPCC’s home on the web is located at www.neiwpc.org. We hope you’ll visit soon and visit often.
Social Media

At NEIWPCC, we don’t claim to be an early adopter of social media, but since 2011, we’ve enthusiastically embraced this means of rapidly getting out news about our work and water issues. Using Twitter and Facebook has allowed us to reach people in an exciting and immediate way, and we are always looking to more fully take advantage of social media as a means of communication. In 2012, we increased the visibility of our Twitter feed by adding it to the home page of our website, and we were thrilled to see our number of Twitter followers and Facebook “likes” steadily increase throughout the year.

The interest speaks to the efforts made by NEIWPCC staff to make our social media posts engaging and of real value to our followers. Unlike a commercial enterprise, brand-building isn’t our goal. We view social media as one more tool to help inform, educate, enlighten. As a result, our posts are diverse; if there’s an interesting connection to water and our work, we use social media to get the word out. In fiscal 2012, we tweeted about fascinating videos; news developments; new water websites, technology, and apps; NEIWPCC news, events, and job openings; and much more. NEIWPCC’s Heather Radcliffe, who’s been instrumental in increasing our social media presence, even set up a poll on Facebook where we sought our community’s views on the move by some clothing manufacturers to pursue waterless dyeing. The poll quickly became our page’s most popular post.

If you’re already a Twitter user and don’t yet follow NEIWPCC, we encourage you to do so. If you’re new to Twitter, get started by creating a free account at www.twitter.com. Then type twitter.com/neiwpcc into your browser’s address bar, and once on our Twitter page, click “follow” in the upper right. If you have a Facebook account, we’d appreciate a “like,” which allows us to send you messages and will help spread the word about our page to your connections. If you don’t have an account, you may create one for free at www.facebook.com.

In an example of the immediacy that social media affords, we posted this photo of then-Secretary of the Interior Ken Salazar with U.S. Rep. Niki Tsongas on our Facebook page on May 25, 2012, less than 30 minutes after interviewing Salazar during his tour through Lowell. The post included his response to our question about funding for 10 Northeast river restoration projects he’d announced just the day before. “We already have a significant investment in all this work, and each of the projects is different,” Salazar said. “But within my department’s budget, I will prioritize on investing in these rivers and others around the country.”

Snapshots of Service

Each December, NEIWPCC distributes what we call our state summaries. For each of our member states, we produce a customized fact sheet that provides brief explanations of the regional and in-state work that we engaged in during the prior fiscal year. While the summaries published in December 2011 were longer than in recent years and featured photographs for the first time, the goal was the same—to provide an effective, quick means of informing residents of a member state, and state officials in particular, of the benefits of Commission membership. Our latest series of summaries, developed in December 2012, is available on our website at www.neiwpcc.org/statesummaries.asp.
Raising Awareness

The work of keeping the public informed on water issues also encompasses in-person outreach, as evidenced by the extensive work with schools and community groups done each year by NEIWPCC’s Colleen Hickey and our other staff at the Lake Champlain Basin Program. NEIWPCC’s Lowell-based communications staff also periodically ventures out to engage with young people who might otherwise miss our message. In June 2012, for example, the staff visited Esperanza Academy, a tuition-free independent school for girls in Lawrence, Massachusetts, and led 33 girls through basic water quality tests as part of the World Water Monitoring Challenge, an international effort coordinated by the Water Environment Federation and International Water Association. The tests gave the girls hands-on experience with indicators of water quality including temperature, pH, turbidity, and dissolved oxygen. NEIWPCC staff recorded the testing results in the WWMC’s vast online database and showed the students how their work integrated with a global effort to build public awareness and involvement in protecting water resources. In 2012, roughly 250,000 visits were made by WWMC participants to monitoring sites in 66 countries.

Students and teachers from the Esperanza Academy in Lawrence, Mass., gather after collecting water samples from the Merrimack River. NEIWPCC’s Heather Radcliffe is fourth from right.

In another example of our outreach efforts, NEIWPCC Training Coordinator Don Kennedy speaks with a student at the NEIWPCC booth at “Splash,” a conference held at Roxbury (Mass.) Community College on October 2, 2012, to create awareness about water, the environment, and careers in the water field. To engage the students, we brought along a laboratory microscope and slides containing samples of activated sludge taken that morning from the wastewater treatment facility in Lowell.
From the Comptroller

This page contains the results of the latest audit of NEIWPCC’s program revenue and expenditures for the fiscal year ending September 30, 2012. 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 2012 was a good year financially for NEIWPCC, with total revenue exceeding total operating expenses. This resulted in an increase 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

NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION

Statement of Program Activities
Year Ended September 30, 2012

REVENUE
Federal Grants ........................................... $7,191,948
Member State Support ................................. 143,307
State Contracts ......................................... 2,191,898
Training ................................................. 744,658
Interest Income ........................................ 4,467
Donated Services ....................................... 461,003
Other Income .......................................... 36,088
Other Contracts ....................................... 2,623,999
MA/ME License Renewal Fees ....................... 387,785
MA/ME Certification Exam Fees ................... 19,400

Total Revenue ........................................ 13,804,553

Operating Expenditures ............................. 13,721,781

Investment Income ..................................... 31,802

Change in Net Assets ............................... $114,574
In 2012, we continued our long tradition of recognizing NEIWPCC Commissioners and staff for milestones in their service to the Commission. We also started a new tradition of honoring employees for exemplary service with quarterly Above and Beyond Recognition Awards and an Annual Achievement Award. As mentioned on page 14, our first annual award went to Meg Modley of the Lake Champlain Basin Program for her extraordinary accomplishments. Seen below at left, with Meg, are the rest of the recipients of our 2012 commendations for service as they gathered at our All-Staff Meeting in June. Seen below at right are the three Commissioners who marked milestones in 2012 in their years of service to NEIWPCC. Congratulations to all, and thank you for your many contributions.

Front, left to right: Susan Bailey, Above and Beyond Recognition Award; Emilie Hauser, 10 years of employment with NEIWPCC; Susy King, Above and Beyond Recognition Award; Meg Modley, Annual Achievement Award; Lecann Hanson, 20 years of NEIWPCC employment; Patricia Brady, 10 years. Back, left to right: Paul Spina, Above and Beyond Recognition Award; Rebecca Thomas, 10 years of NEIWPCC employment; Linda Agostinelli, 15 years; James Brangan, 10 years; John Murphy, 10 years. Not pictured: Robert Adams, five years; Beth Card, Above and Beyond Recognition Award.

Above left: Terry Campbell, Maine, marked five years of service as a NEIWPCC Commissioner; above right, Fred McNeill, New Hampshire, also five years; at left, James Rogers, Massachusetts, marked his 35th and final year as a Commissioner. Jim, we deeply appreciate the commitment you showed to NEIWPCC over the years and all the support and wise guidance you provided. Thank you for your extraordinary 35 years of service.
Address service requested.