



# **Narragansett Bay Estuary Program FY2009 Workplan**

**Narragansett Bay Estuary Program  
University of Rhode Island - Coastal Institute  
URI Bay Campus  
Narragansett, R.I.**

*Grant period July 1, 2009 to June 30, 2011*

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## **A. NBEP OVERVIEW**

The Narragansett Bay Estuary Program is part of the National Estuary Program (NEP), a national network of 28 programs working for collaborative solutions for estuaries designated by Congress as of critical importance. Created in 1987 under the Clean Water Act, the NEPs are charged with protecting and restoring U.S. estuaries by engaging state and federal agencies, nongovernmental organizations and local communities in planning and management decisions and actions. The U.S. Environmental Protection Agency provides base funding and federal oversight for each of the NEPs, but program management is typically the responsibility of an estuary stakeholder-based management committee.

In 1993, the Governor of Rhode Island and the Administrator of the Environmental Protection Agency affixed their signatures to the Narragansett Bay CCMP, committing both entities, with other partners who developed the plan's recommendations, to implementation of the Bay plan. Concurrently, the CCMP was accepted as part of the R.I. State Guide Plan, requiring that State agency and municipal plans are consistent with the CCMP. The plan specifically recognizes that it should be a living and dynamic plan and should be periodically reviewed and revised to address current needs and issues.

In keeping with Congress' mandate, since 1993 the Narragansett Bay Estuary Program has been implementing the CCMP by coordinating planning, policy, technical assistance, science and outreach pertaining to Narragansett Bay's environment.

The NBEP is affiliated with the Coastal Institute (CI) at the Graduate School of Oceanography at the University of Rhode Island, which provides program offices for its four-person staff; the R.I. Department of Environmental Management also provides some satellite office space in Providence, R.I. This institutional arrangement gives the program more flexibility to hire and oversee co-located or nonpermanent project staff and has allowed the program access to additional nonfederal match.

### **NBEP Program Mission Statement**

*To protect and preserve Narragansett Bay and its watershed through partnerships that conserve and restore natural resources, enhance water quality and promote community involvement.*

The NBEP accomplishes this by:

- Promoting a holistic perspective of Narragansett Bay and its watershed that includes social, economic and environmental aspects.
- Coordinating actions to protect and restore coastal ecosystems;
- Initiating and managing restoration plans and projects;
- Using collaboration and partnerships to address common goals;
- Identifying information needs; acquiring, interpreting and disseminating data to support informed, science-based decision-making;
- Stimulating discussion on Bay issues and bringing expertise through public workshops, professional forums and scientific symposia and reporting on the results;
- Effectively keeping the public and policy-makers informed of Bay and watershed issues;
- Matching resources to management needs through grants and partnerships;
- Supporting local watershed organizations in restoration, protection and outreach

initiatives;

- Convening and coordinating interagency technical teams and workgroups such as the Partnership for Narragansett Bay, R.I. Habitat Restoration Team and Dissolved Oxygen Strike Team.

The 1992 Narragansett Bay CCMP contained a set of overall goals developed through a consensus-based stakeholder process. These broad goals are:

- *Protect and restore waters and water quality-dependent uses throughout the Bay and watershed*
- *Protect and restore bay and watershed critical resources and habitats*
- *Restore and better manage fisheries and other living resources*
- *Use partnerships, joint planning and agreements to implement the CCMP on a watershed basis and monitor progress*

Core NBEP workplan priorities have been derived from these and from input from past collaborative Bay planning processes and initiatives. In May 2006, the NBEP Management Committee recommended three consolidated areas of concentration for the NBEP that build on program strengths, identified needs, and are consistent with the CCMP goals:

- Analyze, synthesize, and interpret monitoring and other data in order to communicate timely, meaningful information on the condition of the Bay and its associated watersheds, including habitats, water quality, and institutional efforts
- Serve as regional leader for establishing a watershed-based framework that reflects key management issues that can be addressed and acted on in both R.I. and Massachusetts
- Focus program activities on key restoration and protection goals that engage constituencies and, concurrently, identify emerging issues and corresponding technical and information needs related to those issues.

## **The NBEP Role in Narragansett Bay Ecosystem Planning & Management**

Like the other National Estuary Programs, the NBEP is the only planning, policy and project initiative with a specific Clean Water Act charge to work on a watershed/ecosystem basis and to do this in a highly collaborative manner, based on an articulation of stakeholder priorities for the watershed which is the foundation of a CCMP. NEPs serve as catalysts in their watersheds: working to attract and direct federal and other resources to local needs, building needed scientific and watershed information, informing the public and policy makers, convening collaborative workgroups around key issues in estuary watersheds, supporting local grassroots-level organizations to conduct implementation actions, and bringing together funding, partners and projects to implement the defined goals and objectives of estuary management plans.

The NBEP identifies areas of need where the program can have the greatest impact, filling data and action gaps. Using its skills in science, policy, management and communications, the NBEP seeks to address key issues in the Narragansett Bay watershed, through program and partnership action.

The program has taken leadership roles in several areas of Bay and watershed management including the restoration of anadromous fish to Bay rivers and streams and coastal marsh restoration, enhancing bi-state connections with stakeholders in the Massachusetts part of the watershed through grant programs and technical assistance, tackling data needs by actions

such as instituting the first dissolved oxygen surveys of the Bay and creating the first baseline data sets on the status of the state's coastal habitats, increasing accountability and ability to measure environmental progress through development and use of Bay and watershed indicators, promoting the use of an watershed ecosystem perspective in both planning and implementation actions, and creating a mechanism to broadcast information specific to Bay issues to the greatest possible number of watershed residents and stakeholders through the publication of the *Narragansett Bay Journal*.

## **B. CURRENT ISSUES & CHALLENGES**

**Climate Change – Narragansett Bay and its watershed:** Bay scientists and managers are documenting changes in the Bay ecosystem that they believe are the result of warming Bay temperatures related to climate change. The average mean temperature of Narragansett Bay has increased by two degrees Fahrenheit and the average mean winter temperature by four degrees. These are significant changes and are having an effect on the Bay ecosystem. Researchers are seeing changes in the timing of Bay biological events and shifts in species. The food web is changing which then alters the composition of communities that depend on it. The NBEP is working to increase understanding of changes in the Bay. Building on the program's involvement in issues related to nutrients and the Bay and working in collaboration with Brown University researchers and other partners, the NBEP held a technical workshop to explore possible changes in how nitrogen is cycled in the Bay. Because state water quality managers are developing and implementing measures to address excessive nitrogen loading to the Bay, it is increasingly important to gain an understanding of any changes in how nutrients are cycled through the Bay ecosystem. The NBEP sees a role for the program in working with partners to build scientific understanding of the impacts of climate change on the Bay ecosystem. In this workplan, the NBEP has committed to assisting RIDEM in development of nutrient criteria; our involvement in the EPA ORD pilot Biological Condition Gradient project will inform this work.

**CCMP Update and State Planning Processes:** Over the last few years, the NBEP supported and was involved in a state legislature mandated effort to produce both an interagency coordination process - the R.I. Bays, Rivers and Watersheds Coordination Team - and a new bay and watershed plan. The NBEP supported this effort as it was well-timed to integrate with the NEP requirement to revise the Narragansett Bay CCMP and the NBEP could provide something that the state-focused effort could not – a direct connection to the public, stakeholders and organizations in the Massachusetts part of the watershed who needed to be included in any attempt at watershed planning and implementation. As the state effort targets mainly better coordination on Bay issues among seven R.I. state agencies, the NBEP can help connect this effort with the broader Bay and watershed stakeholder community through the CCMP revision process. NBEP staff participated in the Coordination Team planning workgroup that developed the RIBRWCT systems level plan; a revised CCMP will be built on the ecosystem structure developed for the system levels plan which was based on earlier planning work with strong NBEP involvement (the Narragansett Bay Summit 2000, the Partnership for Narragansett Bay projects, R.I. Governor's Bay and Watershed Commission, etc.). The recently completed NBEP status and trends report provides an agreed upon understanding of ecological issues that will be one of the foundations of further Bay and watershed planning efforts. A challenge inherent in this work is how to integrate planning efforts that arise from different sources, scopes and purposes to achieve maximum coordination and efficiency in identifying and developing solutions for Bay and watershed problems. The NBEP is involved with the Coordination Team and the R.I. Statewide Planning Program in an effort to build a set of

overarching watershed management goals and policies that will inform watershed planning in the state.

**Federal Funding for the National Estuary Program:** At a June 2008 Congressional hearing, Congressman Norm Dicks, chair of the U.S. House of Representatives Appropriations Committee, expressed his view that the National Estuary Program is significantly underfunded, given the role expected of NEPs in the 28 coastal watersheds designated by Congress as of national significance and he advocated for increased funding for the NEP. The FY2010 budget included in the House Appropriations draft bill includes \$1 million for each NEP; this is likely to positively affect the final 2010 funding level but the ultimate result is unknown at this point. It is, however, indicative of a strong level of Congressional support for the program. At the same time, national level discussions are underway involving EPA, Congress and the Association of National Estuary Programs on what provisions might be included in legislation that reauthorizes the NEP. This new legislative language will likely take the form of a significantly rewritten section to the Clean Water Act and may involve inclusion of the NEP in a national watershed program that would also include what are termed Large Aquatic Ecosystems (LAE). LAEs include Chesapeake Bay, Long Island Sound, Puget Sound, Gulf of Mexico and Great Lakes. If the NEPs are put in a situation where they more directly compete for funding with these Congressionally-connected programs, the funding dynamic could change for the NEPs.

**Supporting Bay and Watershed Monitoring:** The NBEP has been a leading organization in building the current capacity for Bay monitoring through its ground-breaking dissolved oxygen monitoring program, involvement in the federally funded Bay Window and National Coastal Assessment monitoring projects, and in developing bay and watershed ecological indicators. The program continues its role as a partner in the \$6.5 million 5-year NOAA-funded Coastal Hypoxia Research Project (Narragansett Bay element). And the program also continues to work in cooperation with EPA's Atlantic Ecology Division lab on a Bay macroalgae monitoring project. To date, the NBEP and EPA AED have been fortunate in securing in-kind services from the R.I. Airport Corporation in the form of the use of the RIAC helicopter to conduct aerial photography.

As a result of the NBEP status and trends report, there will be a workshop in November 2009 for monitoring agencies and stakeholders as the start of an NBEP-led effort to enhance and solidify the ecosystem indicators that were identified through the S&T effort. Again, the NBEP role will be to provide organizational and technical support and to provide a bi-state focus for this work.

**Supporting Grassroots and Community Action:** The NBEP has invested in the past and continues to invest in building capacity for local watershed and NGO efforts. Ongoing efforts include supporting the Land and Water Conservation Partnership and production of its annual Summit meeting, the development of the Blueways water trails project with a planned expansion into Massachusetts rivers as well as the rollout of its ExploreRI.com website, development of organizational infrastructure for watershed groups and other NGOs, and assisting watershed councils on specific projects of initiatives like providing technical assistance to the Blackstone River Watershed Council in its efforts to restore river fisheries.

### C. NBEP FY2009 PROPOSED BUDGET INFORMATION

<b>NBEP FY2009 staff expenses</b>	
Personnel	\$336,342
Fringe	\$158,108
Indirect	\$ 99,481
Other/operating	\$ 6,069*
<b>TOTAL</b>	<b>\$600,000</b>

Note that Fringe and Indirect costs constitute nearly 43% of staff costs. The total grant amount is \$591,750. After staff expenses, the balance remaining (\$6,069) will be added to some remaining funds and other funding sources (foundations, etc.) that total approximately \$33,000; this will be allocated to support for workplan projects, printing/production, supplies, equipment, travel & mileage costs, office support, and miscellaneous expenses. Operating funds are approximately \$22,000 less than anticipated due to unanticipated mid-year state increase in fringe rate to cover retirement system costs.

### ESTIMATED STAFF RESOURCE ALLOCATION BY PROGRAM GOALS & OBJECTIVES

<b>Workplan Goal/Objective</b>	<b>FTEs allocated</b>	<b>Percent of FTEs</b>
Priority Area 1: Objective 1A	2.1	39%
Priority Area 1: Objective 1B	0.6	11%
Priority Area 2: Objective 2A	0.5	9%
Priority Area 2: Objective 2A	0.7	13%
Priority Area 3	0.75	14%
Priority Area 4	0.75	14%
<b>Totals</b>	<b>5.4</b>	<b>100.0%</b>

## **D. ACCOMPLISHMENTS & STATUS OF PREVIOUS YEAR'S AND ONGOING PROJECTS**

### **Bay Science & Monitoring**

**Narragansett Bay and Watershed Status & Trends Initiative:** During 2008 and 2009, NBEP developed its comprehensive technical report on environmental status and trends of the Narragansett Bay Region. The report was developed with input from more than 60 experts and stakeholders. On May 16, 2008, more than 20 participants attended a technical meeting hosted by NBEP to review and guide our work on the report, following which we assembled a technical committee to assist on an ongoing basis. The committee encouraged adoption of an “environmental indicators” approach to S&T reporting; NBEP revised its report accordingly and in April 2009 completed a technical draft titled “Currents of Change.” On May 1, 2009, NBEP hosted a conference of experts and stakeholders at Roger Williams University in Bristol, R.I., using the report as a foundation for discussions regarding environmental challenges and solutions for the Narragansett Bay Region. The conference was attended by more than 50 scientists and managers from federal, state and local government; universities; and non-governmental organizations in Rhode Island and Massachusetts. John Howell of Washington state’s Cascade Agenda and Bill Howland of the Lake Champlain Basin Program shared their experiences in ecosystem management from elsewhere in the country. NBEP is now finalizing the technical report and developing a public summary report of “Currents of Change.” Beginning in Fall, 2009 we’ll work with the NBEP management committee and other experts and stakeholders to carry out a principal recommendation of the workshop—developing and reporting on an improved set of ecological indicators for the Narragansett Bay Region.

**Targeted Dissolved Oxygen Surveys – Upper Narragansett Bay:** In 2009, NBEP began its tenth year of dissolved oxygen monitoring on Narragansett Bay. Over the past decade, the DO surveys have led to significant improvements in scientific understanding of Narragansett Bay and greater awareness of nitrogen impacts on the Bay ecosystem. In combination with data from other more recent DO monitoring initiatives, such as fixed-site buoys, the NBEP surveys led to major changes in policy and management, including stricter regulation of wastewater treatment plant discharges and reclassification of more Bay waters as impaired for DO under state water quality standards. NBEP is continuing its monthly boat surveys of Upper Narragansett Bay and one of its most sensitive embayments, Greenwich Bay, with assistance from the R.I. Dept. of Environmental Management and Brown University. New high-tech monitoring technology has improved upon the methods of the overnight, large team surveys that the NBEP organized from 1999-2003, providing better data using fewer resources (for survey information, maps and photos, see <http://www.geo.brown.edu/georesearch/insomniacs>). Preliminary 2009 data suggests that water quality conditions are relatively good this year. Average temperature during the spring and early summer was below normal, suggesting that temperature may have a significant influence on incidence of hypoxia on Narragansett Bay.

**Macroalgae Surveys in Narragansett Bay:** In 2008 and 2009, NBEP continued its baseline monitoring of macroalgae in Narragansett Bay, using aerial photography (via helicopter). The project was developed to try to fill data gaps on extent and condition of macroalgae growth and its relation to areas with significant nutrient loading and low dissolved oxygen readings. The program now has a digital record of macroalgae extent for the summer of 2007 and 2008 of nearshore areas of the Bay and is producing maps based on this information. URI’s Dr. Carol Thornber provided assistance in identifying difficult specimens collected when field-truthing survey data. The 2009 surveys are now underway. The NBEP presented a Poster on this

project at the annual Fall meeting of the New England Estuarine Research Society (NEERS) in Salem MA in April 2009. A new poster on more recent results has been accepted for the biannual Coastal and Estuarine Research Federation (CERF) International Meeting in Portland, Oregon in November 2009.

**Invasive Species:** The NBEP is an invited participant and active member of the RI Aquatic Invasive Species Working Group, which is lead by the R.I. Coastal Resources Management Council (legislative designated lead on invasive species issues). This group provides technical advice and oversight of implementation of the R.I. State Aquatic Invasive Species Management Plan, which was approved by the federal Aquatic Nuisance Species Task Force in November 2007. The group is presently prioritizing implementation tasks to be funded with \$3500 from the US Fish & Wildlife aquatic invasive species funds. Dr. Chris Deacutis, NBEP Chief Scientist, is a state contact point in R.I. for sightings of the Chinese Mitten crab, recently found in the Hudson River.

**Continued participation on Bay Window Monitoring Project Steering Committee:** The NBEP has been a significant voice in guiding this NOAA-funded project since its inception. This project has received an annual average of \$700,000 in NOAA funds.

**NOAA Coastal Hypoxia Project:** Dr. Deacutis is one of the principal investigators, along with researchers from the University of Rhode Island, Brown University, University of Connecticut and Virginia Institute of Marine Science, in a 5-year project designed to develop a predictive hypoxia model and linked ecological model that will be verified by field measurements. The oxygen modeling component of the project relies on the NBEP / Brown University dissolved oxygen survey data.

**Nitrogen Cycling Workshop:** In a partnership with the NBEP science staff, Brown University funded a January 2009 2-day technical workshop for regional and national experts on the issue of using nitrogen isotopes and other techniques. The workshop, held at Brown University, has resulted in a collaborative research proposal to R.I. Sea Grant to study Bay sediments to assess historic organic content of Bay waters. Partners: Brown University, Woods Hole Marine Biological Lab, NBEP.

**Scientific Workshop Participation:** The NBEP was invited to participate in a workshop on “Measuring, valuing and establishing markets for shellfish ecosystem services” at the University of Rhode Island, Kingston, RI on September 24-25, 2008 convened by URI and The Nature Conservancy (TNC). This interdisciplinary workshop included natural scientists, social scientists and aquaculture practitioners brought together to summarize practical and policy-relevant means of valuing non-extractive, *in situ* ecosystem services, and to assess potential market-like institutions to capitalize on those services.

The NBEP was an invited participant in a national EPA-sponsored workshop on use of a Biological Condition Gradient Approach to development of biological criteria for estuarine waters on October 29 – 30.

## **Community & Watershed Projects**

**Land & Water Conservation Summit Held March 2009:** This summit, which this year attracted over 300 conservation leaders from watershed groups, land trusts and municipal conservation commissions, as well as governmental representatives, is an annual event. The 2009 Summit was organized and hosted by the NBEP and the R.I. Land Trust Council. The NBEP provided staff and financial support and provided training presentations to participants.

**Water Management in Rhode Island:** NBEP is a member of the Coalition for Water Security (CWS) which has been working since 2005 to improve RI's management of freshwater resources. Activities in 2009 include:

- The CWS worked closely with water suppliers and decision makers on legislation to develop a comprehensive water management policy in RI, the Water Use and Efficiency Act (S. 732 Aaa,H. 5828). This bill promotes water efficiency and conservation, helps RI to capitalize on its water supply to create a competitive edge, protects our natural resources by maintaining adequate water in our rivers and streams and improves the structure and operation of the Water Resources Board. The CWS is hopeful that the legislation will pass during the legislature's summer session.
- The CWS organized and hosted a public forum on RI's Water Supply: Conservation and Competitiveness (March 30) with national water expert Mary Ann Dickinson as keynote speaker. Pam Marchand (General Manager and Chief Engineer, Providence Water Supply Board), Chris Woodcock (President, Woodcock & Associates and expert on water finance and rates), Scott Wolf (Grow Smart RI, member CWS). Approximately 65 people attended the forum representing state and federal agencies, water suppliers, watershed organizations, legislators and concerned citizens. Presentations were posted on the Coalition for Water Security web site.
- The Coalition's updated web site was completed, <http://coalitionforwatersecurity.org>. The web site includes information on the Coalition's three years of research and advocacy for improved water management in RI.

The CWS has been able to secure grant funding from the R.I. Foundation, the Park Foundation, the Jessie B. Cox Charitable Trust, the Prospect Hill Foundation and the Prince Charitable Trust.

### **Coalition for Transportation Choices (CTC) – applying the lessons from the Coalition for Water Security to new issue of concern**

The condition of Narragansett Bay and its watershed is significantly affected by our current transportation choices. Runoff from roads, parking lots and homes is a major source of pollution to rivers, streams and the Bay. NBEP's goal is to protect and restore Narragansett Bay and its watershed, and this can not be accomplished without sustainable transportation choices for the more than 2 million people living in the watershed. NBEP also promotes grassroots, stakeholder based decision making for the Bay watershed. The goal of the project is to build a diverse coalition of organizations and individuals to support sustainable transportation policies in Rhode Island. The network has two major goals. 1) To put healthy, sustainable and accessible transportation on the policy agenda and build momentum for implementation. 2) To build the capacity and influence of Rhode Island's grassroots environmental movement.

The CTC has been able to secure grant funding from the Prince Charitable Trust and the Prospect Hill Foundation. Proposals are pending with the RI Foundation.

**RI Blueways Alliance ([www.exploreRI.org](http://www.exploreRI.org)):** NBEP is a founding member of the RI Blueways Alliance (RIBA) and sees the project as a way to build public awareness and conservation of freshwater resources and strengthen watershed organizations. The mission of the Rhode Island Blueways Alliance is to develop a water trail network linking Rhode Island's rivers, lakes and ponds to Narragansett Bay and to use the trail to promote safety, conservation, recreation and economic development. Recent accomplishments:

- RIBA prepared comments on Ocean State Outdoors, Rhode Island's Comprehensive Outdoor Recreation Plan (SCORP) which were presented at the May 27 public hearing.
- RIBA's web site, ExploreRI, was expanded to include 184 published sites. An additional 14 sites are inactive and 68 sites are being processed. Many of the in-process sites are in the Taunton River watershed.
- NBEP represents RIBA on the RI Trails Advisory Council.
- Trip leading workshop at the Land & Water Summit (by Denise Poyer) and training for trip leaders by EMS (May 14, 2009).
- Organized a suite of paddle trips for the summer of 2009, Paddle 09.
- Developed the Roger Williams Paddle Trail with a trail map and grand opening (July 10/11)
- Land and Water Convergence at Governor's Bay Day (July 26)

#### **Technical Assistance Workshops for NGOs and Communities:**

**Trail Design Workshop:** A hands-on trail construction and maintenance workshop provided by John Monroe with the National Park Service Rivers and Trails program. It follows the trail design workshop offered in 2007 and John's introductory workshop at the Land & Water Summit. The workshop was held May 30 at TNC's Tillinghast Pond Management Area.

**Donor/Member Retention & Best Practices Workshop – Building Your Organization's Membership and Annual Donor Base:** This workshop, held June 2, 2009, explored best practices for retaining and growing revenues through annual giving and membership. Participants learned how to reach new donors/members and how to keep and build support from your current donors/members. The workshop provided information on how to use donor/member databases, using the Land & Water Partnership's "Salesforce" database as an example.

#### **Habitat Restoration/Technical Assistance**

**Town Pond Coastal Wetland Restoration Project:** The NBEP had worked on the Town Pond project for over six years; construction was completed in 2007. Post restoration, the salt marsh/salt pond ecosystem is recovering rapidly, with regrowth of native intertidal vegetation and extensive utilization by fish and other estuarine fauna. NBEP continues to provide outreach on the project to promote the benefits of coastal habitat restoration and share lessons learned. We engaged Roger Williams University in restoring oyster beds to the restored salt pond, and are tracking the progress of that work.

**Lower Pawtuxet River Ecosystem Restoration:** NBEP led a community based process to restore the lower Pawtuxet River for anadromous fish passage. Working extensively with stakeholders and river restoration experts, that work led to selection of partial dam removal at Pawtuxet Falls as the preferred alternative for restoration—in order to restore broader ecosystem functions and values to the lower river, in addition to fish passage. NBEP continues

to manage that project, and in 2008/2009 engaged in extensive community outreach, meeting with citizens and business owners in the community. We provided technical assistance to a local NGO, the Pawtuxet River Authority, to develop and award a technical contract for final design and permitting, which is underway now. We worked with R.I. Dept. of Environmental Management to effect a regulatory change which will facilitate dam removal projects throughout the state. We developed several major funding applications to secure match towards a standing commitment of \$300,000 by USDA NRCS, resulting in an award of \$300,000 from RIDEM. We are continuing to manage the permitting and design process, with a goal of construction in late 2009 or 2010. We are working with NRCS on a companion project to restore wetlands just upstream of the dam removal site, and are beginning restoration planning for other dams upstream.

**Ten Mile River Fish Passage Project:** NBEP continues to provide technical support to the City of East Providence and Ten Mile River Watershed Council regarding fisheries restoration of the Ten Mile River. The restoration project is led by U.S. ACOE and R.I. DEM and will entail construction of one of the three fish ladders, restoring passage for river herring, shad and eels in East Providence, RI, and Seekonk, MA. Funding is from USDA NRCS, ACOE, NOAA and RIDEM; construction is now scheduled for 2009 and 2010. Once completed, the project will open up over 700 acres of fisheries habitat.

**Blackstone River Fish Passage Project:** NBEP continues to provide technical support to the Blackstone River Watershed Association, NRCS and other partners regarding fisheries restoration of the Blackstone River. This project focuses on constructing fish passage structures over the first four dams on the River – three of which hold FERC permits for hydropower generation. The USDA NRCS is providing funding for the first, second and fourth dam while the R.I. Department of Environmental Management will cover costs for the third dam. At the three NRCS-led projects, engineering and permitting are underway, and construction is scheduled for 2009 and 2010. At the DEM-led project, negotiations with the dam owner are continuing.

**Upper Pawcatuck River Fish Passage and Dam Removal:** NBEP is continuing to provide technical assistance to the Wood-Pawcatuck Watershed Association (WPWA) and partners to complete two dam removals and an engineered fish passage at 3 dams on the upper Pawcatuck River. The project will provide spawning habitat for river herring, American shad and American eel along the river and in Rhode Island's largest natural body of fresh water, Worden Pond, 1,043 acres in size. In early 2009 NBEP supported development of an application to NOAA under the American Recovery and Reinvestment Act which resulted in an award of \$3 million in economic stimulus funding for the upper Pawcatuck and Ten Mile River restoration projects. NBEP is also working with WPWA to provide technical support related to a proposed hydro development at a downstream dam on the Pawcatuck River, Potter Hill Dam. NBEP has provided comments to the municipality and is preparing comments to FERC on Potter Hill's draft license application.

**R.I. Coastal and Estuarine Habitat Restoration Trust Fund:** The state estuarine habitat trust fund again provided \$250,000 from state oil spill and response funds for coastal habitat restoration projects. NBEP staff served on the project proposal review and selection committee and is involved in several of the projects that received trust fund moneys.

**River Restoration Policy Initiative:** NBEP is working with Save The Bay to develop policy recommendations for accomplishing river restoration in Rhode Island. The project will examine watershed restoration needs and opportunities throughout the state; identify impediments to

restoration; and propose changes in policy and regulation to facilitate restoration efforts. An important aspect of the project entails examining new approaches in neighboring states which have been highly successful in this area, and adapting those lessons to Rhode Island's regulatory framework.

**Restoration Outreach and Technical Assistance:** NBEP continues to provide outreach and technical assistance to public and professional audiences and stakeholders regarding ecological restoration. In Fall, 2008 we delivered two presentations at the Restore America's Estuaries Conference in Providence, which we also helped to organize, serving on both local and national committees. We assisted local groups, such as Buckeye Brook Association and the Narragansett Harbor Management Commission, in scoping restoration projects and developing funding applications. We presented information on urban environmental restoration to the national meeting of National Estuary Programs and EPA in New York City, and are planning a similar presentation at the biennial conference of the Coastal and Estuarine Research Federation in November, 2009.

### **Bay & Watershed Planning and Priority Setting**

**R.I. Bays, Rivers and Watersheds Coordination Team – Funding for Monitoring:** The R.I. General Assembly created two funding mechanisms to support Bay monitoring that were to start to generate revenue in Fall 2008; that date has been moved to Fall 2009. The two mechanisms are fees on septage hauling to WWTFs and on underwater cable lines in R.I. waters. Only the first fee mechanism has been put in place; the fee on underwater cable lines has not been implemented due to legal uncertainties and possible challenges by telecommunications companies. It is estimated that the septage fee revenue stream will be approximately \$170,000 per year.

**Coordinated Planning:** The NBEP helped develop environmental priorities to be included in the R.I. Bays, Rivers and Watersheds Coordination Team systems level plan – a plan intended to better coordinate seven state agencies in their work on the Bay and watersheds. The Coordination Team is one of several Bay/watershed initiatives whose genesis can be attributed to the NBEP Bay Summit 2000 – the first effort to bring citizens, stakeholders and state officials together to lay out Bay and watershed priorities. The systems level plan was adopted by the RIBRWCT in 2008 and implementation of that plan is underway. As it shares goals and priorities with the CCMP and with likely CCMP revised goals, the NBEP is working with the RIBRWCT chair and the R.I. Statewide Planning Program to create a coordination mechanism between these two planning efforts. It will be part of Statewide Planning's effort to streamline the R.I. State Guide Plan and to create a set of overarching watershed management policies that will guide future planning efforts in Rhode Island.

### **Communications**

**Continuous Improvement of NBEP Website:** NBEP has continued to improve its program website, adding new content, making all NBEP reports available online, posting NBEP Quarterly Reports and using it to make the NBEP Status & Trends (S&T) Report available. We created and used wikis for S&T report development, linked to the main website. We are working to develop a new web platform for the completed S&T report and ongoing indicators work, and are exploring further improvements in content management. Our goal is to develop a system for web page management which will allow NBEP to manage its web presence entirely in-house, without need of contract web developers, improving program efficiency and reducing costs.

**Narragansett Bay Journal:** The Narragansett Bay Journal is entering its 7th year of publication by the NBEP. In 2008 we developed an on-line format and began electronic distribution of most issues. We brought design, layout and production of NBJ entirely in-house, using desktop publishing software (Adobe InDesign) and new email management software (Constant Contact). We transitioned from an external editorial board to using the NBEP Management Committee as editorial advisors and content providers, which better reflects the strength of the partnerships which provide the program's foundation.

**NBEP Quarterly Reports:** In 2008/2009, the program continued electronic distribution of an e-newsletter to provide updates on program activities, priorities and accomplishments. The report has been welcomed by the management committee and other stakeholders and partners. The report provides timely information on program events and workplan task status.

**Outreach/Information Events/Actions:** NBEP continues to provide outreach to stakeholders and professionals regarding the Narragansett Bay ecosystem, and is continuing to improve information delivery. In 2008, we developed a new program display, with information on the Status and Trends initiative, habitat restoration and other aspects of Bay stewardship. In May 2009, we exhibited the NBEP display at the annual R.I. Salt Water Anglers' Show at the Providence Convention Center.

### **Program Management**

**NBEP Management Committee:** NBEP has continued to engage and grow its management committee, which remains the only interstate organization which regularly meets with the express purpose of discussing Narragansett Bay and its watershed. In 2008 we added a representative of Mass. Dept. of Environmental Protection, Bryant Firmin, to the MC. In 2009 we can report that the MC is more closely engaged than ever. The MC was particularly active in the NBEP triennial program review conducted by EPA Headquarters staff, meeting with the review team in June 2009 to discuss the program and its work. Through the NBEP workplan process, the MC provides input into program operations; through the Status and Trends process, the MC is working to identify needs and establish priorities for science and management of the Bay and its watershed. Members of the NBEP Management Committee have noted that the MC serves as a useful forum for information and discussion about the Bay ecosystem which extends well beyond management of the program itself.

**Development of the NBEP Policy Committee:** NBEP is working with EPA Region I, the R.I. Dept. of Environmental Management, and Mass. Executive Office of Energy and Environmental Affairs to establish a high-level Policy Committee to provide guidance to the NBEP and to serve as venue for issues that relate to the bi-state watershed. Letters of invitation to the committee were distributed July 2009; if invitees agree to participate in the committee, it is anticipated that an initial meeting will take place in Fall 2009.

## Support for EPA Priority CWA Programs

### CWA Priority Program: Monitoring

Since 1999, the NBEP has organized and implemented dissolved oxygen surveys of the Upper and Mid-bay. The program undertook this monitoring because, at the time, the state did not monitor DO levels in the Bay on a consistent basis and there was evidence that hypoxic and anoxic events were occurring. The state was also poised to embark on new management measures to reduce nitrogen loading from the major WWTFs that discharge to the Bay.

Assessing the problem and evaluating the management response were two good reasons for the NBEP to initiate DO surveys. Since that time, the data developed by the NBEP with RIDEM assistance and analyzed/mapped by project partner Brown University, has proven valuable to the state's management efforts. It was a key element in the state's passage of legislation to reduce nitrogen loads to the Bay by 50%.

As part of the program's work in assessing the impacts of excessive nitrogen loadings, the NBEP, in partnership with the EPA Atlantic Ecology Division lab, continues implementing a monitoring project to assess the extent of macroalgae in the Bay in order to determine if macroalgae concentrations are an effective indicator for nutrient impacts. With the use of the R.I. Airport Corporation's helicopter in May, June and July 2009, the project partners continue to secure high resolution images of the Bay's nearshore areas. The NBEP is analyzing the data and converting it to GIS data layers for use in indicator development.

### CWA Priority Program: Water Quality Standards

The NBEP, along with EPA's Atlantic Ecology Division and several other NEPs, produced a national technical workshop on Biological Condition Gradient in November 2008. The NBEP is continuing to work with EPA AED on follow up work related to BCG including assessment of existing Bay biological data for use in this pilot project. RIDEM has requested that the NBEP assist in development of nutrient criteria for the Bay; the NBEP has included this work in our workplan. The NBEP has also agreed to work with RIDEM to develop a more user-friendly format for the 305(b) state's water quality report that will provide a clearer picture of water quality in the state's rivers, ponds and lakes.

### SWA Priority Program: Environmental Reporting

The just-completed NBEP Bay and Watershed Status & Trends Report supports the state water quality program by reviewing and analyzing state water quality data which was presented in this public report. The water quality data was a key component of the report and will be part of the public summary that will be distributed to decision-makers and the public in September 2009. The data will also be part of the NBEP online status and trends website.

### CWA Priority Program: Water Quality Standards (stream flow)

The NBEP is a member of the Coalition for Water Security – a group of organizations that have developed a policy agenda for better management of the R.I.'s water resources. The coalition has been instrumental in advocacy for stream flow standards to protect stream and river ecology. Legislation based on CWS priorities has been introduced in the last two state legislative sessions but has not yet passed; it will be reintroduced in the 2010 session. See a CWS presentation on water management priorities at [http://www.wrb.state.ri.us/conference\\_water2007/CGiles.pdf](http://www.wrb.state.ri.us/conference_water2007/CGiles.pdf).

## Attachment 1: NBEP Management Committee

The NBEP Management Committee has developed into an effective panel that is engaged in the program's work and provides feedback and direction to NBEP implementation actions. The group oversaw current workplan development and provided key guidance and suggestions for improving the workplan. The committee has been discussing the addition of new members that could enhance the ecosystem perspective of the NBEP; a possible addition would be planning officials from both states.

The Committee met in September 2008, December 2008, March 2009 and June 2009; remaining meetings in calendar year 2009 are in September and December. Meetings will be held on a quarterly basis. Current members listed below.

Sue Kiernan, RIDEM	Peter August, URI Coastal Institute
Jim Boyd, RI CRMC	Rachel Calabro, STB Watershed Coordinator
Donna Williams, Blackstone River Coalition	Roylene Rides at the Door, RI NRCS
Jane Austin, Save The Bay (chair)	Mel Cote, USEPA Region 1
David Gregg, R.I. Natural History Survey	Bob Stankelis, Narra. Bay NERR
Ames Colt, RI Bays, Rivers & Watersheds Coordination Team Coordination Team	Carolyn LaMarre, Taunton River Watershed Alliance
Bryant Firmin, MA Dept. of Environmental Protection	

## Attachment 2: NBEP Position Descriptions

### Current NBEP positions

Program Director  
Chief Environmental Scientist  
Policy & Outreach Director  
Watershed & Community Projects Coordinator  
Projects Coordinator  
Interns (usually 2 on staff at any given time)

### ***Program Director (Richard Ribb)***

#### Basic Functions:

As part of the federal National Estuary Program, provides management to stakeholder-based Bay watershed planning and implementation initiative. Works to ensure that sound science is integrated into management decisions; oversees stakeholder processes related to implementation of the Narragansett Bay Conservation and Management Plan (CCMP); administers program activities and grants; oversees program staff and develops and manages collaborative actions to address priority issues. Focus on water quality assessment, protection and restoration; land/watershed and habitat protection and restoration; addressing emerging issues; and developing/reviewing resource management initiatives related to Narragansett Bay and its watershed.

#### Essential Duties and Responsibilities:

- Oversee and direct a wide range of projects related to the implementation of the Narragansett Bay CCMP;
- Identify short- and long-range planning, funding, and implementation goals;
- Develop and track operating budgets and expenditures to achieve grant and contract commitments;
- Facilitate partnerships, planning processes and project teams involving local, state, and federal agencies and other stakeholder organizations;
- Supervise professional staff (and graduate students, interns) and workload assignments;
- Oversee development and administration of multiple technical consulting contracts;
- Research varied policy issues to support program and project development;
- Interact with the Rhode Island Congressional delegation, the state legislature and commissions, government agencies and nongovernmental groups regarding policy, planning and project activities;
- Conceive projects and develop grant proposals;
- Develop, review and analyze state policy, regulations and legislation;
- Represent the program on governmental and academic technical committees;
- Serve as liaison to 28-program nationwide network of National Estuary Programs and to the Association of National Estuary Programs;
- Present program information and lessons learned at national and regional symposia and conferences;
- Seek out and secure additional funding sources for CCMP implementation.

### Other Duties and Responsibilities:

Perform additional duties as required.

### Qualifications:

Graduate degree in environmental science, policy or planning or closely related field and a minimum of 10 years professional experience in coastal ecosystem science, management and policy issues. Experience in synthesizing complex ecological issues into information for decision-makers and the public. Strong skill set in writing, public speaking, facilitation and building consensus. Working knowledge of estuarine science, habitat restoration, water quality protection and restoration, public outreach, legislative processes (state and national), watershed management techniques, and data collection and analysis. Ability to build and manage stakeholder-based decision-making processes. Ability to develop and implement collaborative solutions to priority watershed and bay problems. Experience with state and federal grant processes and the proven ability to develop successful grant applications for governmental and non-governmental grant processes. Familiarity with U.S. EPA (especially the National Estuary Program and Office of Water programs), NOAA, and other coastal and environmental programs. Ability to develop and implement collaborative solutions addressing estuarine and watershed problems. Knowledge of ecosystem and management issues in other U.S. coastal systems.

### Supervision:

Works under the administrative direction of the Coastal Institute Director and in accordance with NBEP annual workplans and program directions approved by the NBEP Management Committee with the considerable latitude for the exercise of independent judgment and initiative. Work is subject to review based on progress and consistency with program goals and principles by the U.S.EPA and the NBEP Management Committee.

### ***Chief Environmental Scientist (Dr. Christopher F. Deacutis)***

### Basic Functions:

As part of the federal National Estuary Program and in conjunction with the Program Director, the Chief Environmental Scientist will serve as scientific director responsible for prioritizing and coordinating applied science studies, field work, and focused scientific reviews and white papers directly or indirectly supported by the NBEP, as well as directly participate, and in some cases, lead the work to be completed. In addition, the Chief Environmental Scientist will interact with science advisory committees and the academic research community, including active participation as co-Principal Investigator in collaborative grant applications and collaborative projects where suitable to address priority science-linked issues associated with the CCMP goals and objectives. This position will address priority technical / scientific workplan tasks, including writing of technical documents, synthesis of technical information, and development of management recommendations based on such analyses, including presenting this information to both technical and general public audiences at a technical detail level appropriate to the targeted audience.

### Essential Duties and Responsibilities:

- Oversee wide range of science-based projects related to the implementation of the

#### Narragansett Bay CCMP

- In conjunction with the Program Director, prioritize and coordinate responses of the NBEP to science-linked tasks addressing CCMP priority issues
- Provide the Program Director and other state policy and decision-makers with technical advice on issues related to priority environmental management topics associated with NBEP workplans, and actively participate in technical advisory committees when requested
- Write or oversee the writing of white papers and technical reviews necessary to clarify the state of the art knowledge of specific science-linked topics
- Oversee program monitoring efforts to fill important data gaps to meet management and applied scientific research needs.
- Develop technical recommendation on, coordinate, or in some cases perform tasks related to critical monitoring needs to fill data gaps not addressed by current state monitoring programs for Narragansett Bay
- Where feasible, collaborate and co-author grant proposals to obtain funds to address critical scientific issues related to better understanding the response of the Narragansett Bay ecosystem to anthropogenic pollutant loads in priority management areas (e.g., nutrient impacts).
- Where feasible, actively participate in scientific studies of the response of the Narragansett Bay ecosystem to anthropogenic pollutant loads in priority management areas such as excess nutrients, changes / trends in the distribution of pollutants, studies of the response of important ecosystem components such as macro algae to changes in anthropogenic loads such as excess nutrients along pollution gradients within the Bay.
- Participate in program planning, administration, budget development, and reporting
- Represent the NBEP at technical conferences and symposia, presenting work associated with the program when appropriate.

#### Other Duties and Responsibilities:

Perform additional duties as required.

#### Qualifications:

Minimum qualifications: Graduate degree in marine / estuarine environmental science, biological oceanography, or marine biology and extensive applied research and monitoring experience in estuarine environments; preferred, PhD in the above with a minimum of 10 years professional experience in coastal ecosystem science and management issues. Experience in synthesizing complex environmental issues into information for decision-makers and citizens. Working knowledge of GIS, habitat restoration, watershed management, public outreach and data collection and analysis. Ability to develop and implement collaborative solutions addressing estuarine and watershed problems. Knowledge and experience with state and federal grant processes as well as ability to develop successful grant applications for governmental and nongovernmental grant programs. Knowledge of ecosystem and management issues in other U.S. coastal systems. Familiarity with U.S. EPA, NOAA and U.S. F&W coastal programs.

#### Supervision:

Works under the direction of the NBEP Program Director and in accordance with NBEP annual workplans approved by the NBEP Management Committee with the considerable latitude for the

exercise of independent judgment and initiative. Work is subject to review based on progress and consistency with program goals and principles by the Program Director, the U.S.EPA and the NBEP Management Committee.

***Policy & Outreach Director (Thomas Ardito)***

Basic Function:

The Policy & Outreach Director oversees program communications and stakeholder relations for the Narragansett Bay Estuary Program. The position develops and distributes outreach and communications products to NBEP constituents and oversees planning for communications directions and initiatives. This staff person will also manage funding needs related to communications component of program, working to secure external resources where possible. The position has an additional role in assisting the Program Director and staff in setting program priorities and directions, organizing work assignments, and forecasting program needs. This position will provide targeted technical assistance to stakeholders and organizations in organizing and developing habitat and ecosystem improvement projects.

Essential Duties and Responsibilities:

- Edit and publish *Narragansett Bay Journal*. Chair editorial board; serve as lead reporter, writer, and editor; oversee production and distribution; and supervise staff and interns.
- Write, edit and produce a wide range of communications products for NBEP: program reports, outreach brochures, op-ed pieces, press releases, talking points, speeches, PowerPoint presentations, briefing packets, website materials, technical documents, broadcasts, videos, etc.
- Organize and manage press events, media campaigns, and public events.
- Assist Director in managing state and federal legislative affairs: advocate legislative action; develop and deliver testimony; assist in writing bills; organize meetings and site visits with members and staff on Capitol Hill and in the region.
- Organize, lead and manage broad-based teams of stakeholders, as appropriate, to accomplish results in watershed conservation and restoration.
- Co-chair and coordinate R.I. Habitat Restoration Team.
- Provide technical assistance to local governments, community groups and other stakeholders regarding watershed stewardship and conservation.
- Supervise and manage staff, interns, contracts and grants as required.
- Initiate and co-manage ecological restoration projects and partnerships as appropriate.
- Assist the Program Director in setting program priorities and directions.
- Assist the Program Director in fiscal and organizational management of the NBEP.
- Participate in program planning, administration, budget development, and reporting.

Other duties and responsibilities:

Perform additional duties as required.

Qualifications:

Graduate degree or equivalent in environmental science, policy, planning or related field. Experience in synthesizing complex environmental issues into information for decision-makers and citizens. Experience in conservation policy, planning and management; ability to use

communications and stakeholder relations to promote sound natural resource policy and science. Record of success in leveraging program resources and maximizing the effectiveness of new and traditional media. Ability to organize and lead collaborative partnerships to achieve tangible results, working closely with non-profit, governmental, private sector, academic and lay stakeholders. Skill at writing, editing, and publications management. Accomplished at public speaking and stakeholder relations. Knowledge of desktop publishing and website design. Knowledge and experience with state and federal grant processes as well as ability to develop successful grant applications for governmental and nongovernmental grant programs. Knowledge of ecosystem and management issues in other U.S. coastal systems. Familiarity with U.S. EPA, NOAA and U.S. F&W coastal programs.

Other Duties and Responsibilities:

Perform additional duties as required.

Supervision:

Works under the direction of the NBEP Program Director and in accordance with NBEP annual workplans approved by the NBEP Management Committee with the considerable latitude for the exercise of independent judgment and initiative. Work is subject to review based on progress and consistency with program goals and principles by the Program Director, the U.S.EPA and the NBEP Management Committee.

***Watershed and Community Projects Coordinator (Meg Kerr)***

Basic Functions:

The Watershed and Community Projects Coordinator will address specific program technical assistance and capacity-building tasks as assigned by the Program Director based on CCMP goals and annual workplans and will work closely with other program staff as well as with individual project partners. The position will require supervision of graduate and undergraduate student assistants to NBEP projects. Current program planning priorities require that the person in this position have extensive experience in organizing collaborative efforts with grassroots groups and communities as well as have a working knowledge of general ecosystem science and management issues.

Essential Duties & Responsibilities:

- Create and oversee watershed-based projects related to Bay science and management involving resource identification, protection and restoration including but not exclusive to these areas: water quality, habitat, biodiversity, introduced species, land use, and environmental monitoring.
- Participate in program planning, grant development, administration, budget development, and reporting.
- Provide technical assistance to local governments, community groups and other stakeholders regarding watershed stewardship and conservation.

### Other Duties and Responsibilities

Perform additional duties as required.

### Qualifications:

University/college degree in environmental science/management or closely related field and 10 years professional experience in coastal ecosystem science and management issues. Experience in synthesizing complex environmental issues into information for decision-makers and citizens. Working knowledge of GIS, habitat restoration, watershed management, public outreach and data collection and analysis. Experience in collaborative, stakeholder-based processes and decision-making. Ability to develop and implement collaborative solutions addressing estuarine and watershed problems. Experience in working with nonprofit groups and local communities. Knowledge and experience with state and federal grant processes as well as ability to develop successful grant applications for governmental and nongovernmental grant programs. Knowledge of ecosystem and management issues in other U.S. coastal systems. Familiarity with U.S. EPA, NOAA and U.S. F&W coastal programs.

### Supervision:

Works under the direction of the NBEP Program Director and in accordance with NBEP annual workplans approved by the NBEP Management Committee with the considerable latitude for the exercise of independent judgment and initiative. Work is subject to review based on progress and consistency with program goals and principles by the Program Director, the U.S.EPA and the NBEP Management Committee.

### ***Projects Coordinator (Lesley Lambert)***

### Basic Functions:

The Projects Coordinator will address specific environmental science, communications and other tasks as assigned by the Program Director based on CCMP goals and annual workplans and will work closely with other program staff as well as with individual project partners. The position may require supervision of student assistants to NBEP projects. Current program planning priorities require that the person in this position have base level experience in coastal habitat protection and restoration as well as a working knowledge of general ecosystem science and management issues.

### Essential Duties & Responsibilities:

- Implement science-based actions that implement recommendations of the Narragansett Bay Comprehensive Conservation and Management Plan (CCMP) within the context of a National Estuary Program.
- Provide support to NBEP staff in creating and overseeing watershed-based projects related to Bay science and management involving resource identification, protection and restoration including but not exclusive to these areas: water quality, habitat, biodiversity, introduced species, land use, and environmental monitoring.
- Participate in program planning, grant development, administration, budget development, and reporting.

- Provide technical assistance to local governments, community groups and other stakeholders regarding watershed science, stewardship and conservation.
- Provide technical support to NBEP outreach/communications efforts such as public event planning and productions, website content development and management, and support for Narragansett Bay Journal operations.

#### Other Duties and Responsibilities:

Perform additional duties as required.

#### Qualifications:

Undergraduate degree in environmental science/management or closely related field and 1 year professional experience in coastal ecosystem science and management issues. Working knowledge of Internet technologies, GIS, habitat restoration, watershed management, public outreach and data collection and analysis. Ability to develop and implement collaborative solutions addressing estuarine and watershed problems. Knowledge and experience with state and federal grant processes as well as ability to develop successful grant applications for governmental and nongovernmental grant programs. Knowledge of ecosystem and management issues in other U.S. coastal systems. Familiarity with U.S. EPA, NOAA and U.S. F&W coastal programs.

#### Supervision:

Works under the direction of the NBEP Program Director and in accordance with NBEP annual workplans approved by the NBEP Management Committee. Provides support to director and program staff on workplan and program operation tasks. Work is subject to review based on progress and consistency with program goals and principles by the Program Director, the U.S.EPA and the NBEP Management Committee.

#### **Interns**

Tim Delp has been involved in the DO and macroalgae surveys, providing key technical support and data analysis. Work includes DO survey equipment maintenance and prep and data analyses and data processing of the GSO beach algae digital photography to estimate percent cover at specific sites along the shore on a monthly basis over the last three years. Tim's funding will carry him through October 2009; NBEP will seek additional external funding for Tim's position.

### Attachment 3: NBEP Travel Report – FY2008 and Projected FY2009

<b>Date</b>	<b>Event</b>	<b>Place</b>	<b>NBEP staff/others</b>	<b>Cost</b>
October 13-15, 2008	Restore America's Estuaries National Conference	Providence RI	R. Ribb, C. Deacutis, T. Ardito, M. Kerr, L. Lambert	\$900
November 16-18, 2008	NEP/EPA Fall 2008 Meeting	New York City, NY	R. Ribb, C. Deacutis, T. Ardito, M. Kerr, L. Lambert	\$3,200
February 2009	Spring 2009 EPA/NEP meeting	Washington DC	R. Ribb	\$1,100
April 2-4, 2009	Spring Meeting, New England Estuarine Research Scientists	Salem, MA	C. Deacutis	\$450
<b>FY2008 TOTAL</b>				<b>\$5,650.00</b>
<b><i>PROPOSED FY2009 TRAVEL</i></b>				
<b>Date</b>	<b>Event</b>	<b>Place</b>	<b>NBEP staff/others</b>	<b>Cost</b>
November 1-5, 2009	Coastal and Estuarine Research Federation	Portland, OR	C. Deacutis, R. Ribb	\$400
November 5-7, 2009	National Estuary Program Fall Meeting	Portland, OR	R. Ribb	\$550
February 2010	National Estuary Program Meeting	Washington, DC	R. Ribb	\$1100
<b>TOTAL</b>				<b>\$2,050.00</b>

## **Attachment 4:**

### ***Currents of Change* Stakeholder Workshop Summary Report**

#### **Workshop Identifies Needs for Narragansett Bay**

On May 1<sup>st</sup>, sixty scientists and resource managers met in Bristol, R.I., for a workshop on the Narragansett Bay Region. The meeting, titled *Currents of Change*, was organized by the Narragansett Bay Estuary Program (NBEP) following its release of a draft report by the same name, and was held at Roger Williams University, overlooking Mount Hope Bay.

Workshop participants reviewed the findings of the *Currents of Change* report, in order to take stock of Narragansett Bay's watershed ecosystem as well as the state of knowledge about it. In panel discussions and small-group breakout sessions, they discussed challenges to sustainable management of the Narragansett Bay ecosystem, learn about approaches that are working elsewhere, and begin developing collaborative solutions. John Howell of the Cascade Agenda provided an overview of a 100-year regional vision to preserve environmental quality in the Pacific Northwest, while Bill Howland of the Lake Champlain Basin Program shared his experience in managing an international watershed which spans Vermont, New York State and Canada.

The day was full of lively discussion and debate, with the goal of establishing a foundation for action to meet the environmental challenges facing Narragansett Bay. These notes summarize the results of the *Currents of Change* workshop—recognizing that the day's discussions were far too diverse and interesting to capture completely in this brief report!

#### **Narragansett Bay Region**

The subject of *Currents of Change* is the Narragansett Bay Region (NBR), an area which encompasses Narragansett Bay, its drainage basin or watershed in Rhode Island and Massachusetts, and the adjacent estuaries and watersheds of the Wood-Pawcatuck river system and Rhode Island's coastal Salt Ponds. NBR includes the land areas which have the most significant physical effect on the estuary—the source of all fresh water (more than two billion gallons per day) which flows into Narragansett Bay by way of rivers, streams and ground water. By including the Wood-Pawcatuck and Salt Ponds watersheds, NBR captures the Bay's political geography as well: lands and waters which are managed under the same framework as Narragansett Bay—for example, by means of Rhode Island's water quality programs.

The Narragansett Bay Region is 2066 square miles in area, of which 1028 square miles (50%) are in Massachusetts, 984 square miles (48%) are in Rhode Island, and 57 square miles are in Connecticut. *Currents of Change* describes NBR as an “anthropogenic ecosystem”—an environment created by the natural forces of climate, geology and biology, profoundly influenced by more than two million people who live, work and vacation here. The region is truly subject to *Currents of Change*, as lands and waters are shaped by millions of individual actions, large and small, each day—from highway development, water use and waste disposal, to climate change, habitat restoration and environmental legislation.

## Findings of the Report

The *Currents of Change* report uses environmental indicators to describe “status and trends” of the ecosystem—that is, to assess current conditions and provide a means of tracking changes in order to inform future management. The report describes an ecosystem which has seen significant environmental improvements in recent years, but which still faces substantial challenges. Findings of the report:

- Control of pollution point sources is improving—for example, wastewater treatment plants, where nitrogen discharges have been reduced by one-third over the past five years, leading to improvements in river water quality. New combined sewage overflow (CSO) capture systems in Providence and Fall River will reduce bacterial contamination of beaches and shellfish beds following rain storms.
- Non-point source pollution has major impacts on water quality. Runoff from developed areas with increasing amounts of impervious surface is a principal source of pollution to fresh and salt waters; storm water flows degrade fish and wildlife habitat in rivers, lakes and Narragansett Bay. By contrast with point sources, there are few effective controls for existing sources of non-point source pollution.
- Land use in the Narragansett Bay Region is a principal contributor to non-point source pollution. 14 percent of NBR is covered by impervious surface, reducing the ability of natural systems to filter and clean runoff. New development has continued, despite modest or flat population growth regionally.
- Environmental information is of variable quality and coverage, often lacking trends information and generally inconsistent across state lines. At present, therefore, it is difficult to assess ecosystem trends or determine the effectiveness of environmental management.

*Currents of Change* is available on NBEP’s website, [www.nbep.org](http://www.nbep.org), and is open for public comment through the end of May. In June, NBEP will incorporate public comments as well as those from the workshop, and release a final report in July.

## Workshop Results

Recognizing the environmental challenges described by the report, workshop participants focused on finding solutions for the Narragansett Bay Region. Among the day’s wide-ranging discussions, several key themes emerged, and a number of ideas generated consensus. Together, they add up to “ecosystem-based management:” an approach which transcends political boundaries, but which recognizes the importance of both human and natural systems within the Narragansett Bay Region. Participants widely agreed that these actions are necessary to achieve sustainable management of the Bay ecosystem:

- Develop a stakeholder-based vision and goals: While many reports have set goals for the Narragansett Bay ecosystem, workshop participants agreed on the need to more broadly engage stakeholders, to create a shared vision of a positive environmental future for the Narragansett Bay Region. Use public and stakeholder involvement processes to identify priority actions.

- Take a long-term view: Employ a significant time horizon—like the 100-year vision used by the Cascade Agenda—to capture stakeholders’ imagination and inspire positive change on a grand scale.
- Improve environmental information: Refine and improve the environmental indicators reported in *Currents of Change*, aligning indicators with ecosystem goals so that stakeholders and managers can better assess environmental progress and management effectiveness.
- Work across state lines: Rhode Island and Massachusetts must improve interstate information and collaboration in order to adequately manage Narragansett Bay’s bi-state watershed.
- Increase resources: Improve institutional commitments and identify alternative funding mechanisms, such as market-based approaches to environmental protection.
- Focus on livable communities: To preserve open land and reduce storm water impacts, we must focus on improving existing communities—by redeveloping and “greening” the built environment, improving transportation systems, and enhancing recreational opportunities in an equitable manner.
- Transcend “home rule:” Work at developing institutions or approaches to overcome the present parochial interests of municipalities—for example, regional planning and inter-municipal transfer of development rights.
- Improve technical assistance and collaboration to address stormwater impacts: Provide municipalities and private property owners with information, incentives and resources to reduce stormwater flows.
- Develop strategic solutions to environmental problems—for example, a regional approach to dam removal and river restoration.
- Foster understanding among the public of the value provided by intact ecosystems—such as drinking water, pollution filtration, flood control, tourism, and fish and wildlife habitat.

## Next Steps

In addition to finalizing the *Currents of Change* report, the Narragansett Bay Estuary Program and its partners are working to begin carrying out the workshop’s recommendations. NBEP is convening technical working groups to improve environmental indicators for the Narragansett Bay Region, and will work with partners and stakeholders to better align indicators with a vision and goals for the future. This work supports NBEP’s mandate, as one of 28 National Estuary Programs created by Congress under the federal Clean Water Act, as well as its mission to preserve, protect and restore Narragansett Bay’s watershed ecosystem.

## Attachment 5: Narragansett Bay Estuary Program - FY2009 Workplan Actions

July 1, 2009 – June 30, 2010 funding period

*Workplan Goal 1: Collaborate with scientists and resource managers to collect, analyze, synthesize, and interpret monitoring and other data on Narragansett Bay and its associated watersheds in order to communicate timely, meaningful information on ecosystem condition including habitats, water quality, and institutional efforts*

<u>Project/Activity Name</u>	<u>Project/Activity Description</u>	<u>Staff assigned/schedule</u>
<b>Objective 1.A. Engage technical stakeholders in efforts to synthesize, analyze and interpret Bay ecosystem data and support the development and use of effective Bay ecosystem indicators (.75 FTE)</b>		
1-1. Improvements/Development of Ecological Indicators for Bay and Watershed	Meet with RIBRWCT Environmental Monitoring Collaborative August 2009 to discuss tasks/directions/roles. Organize workshops to identify and initiate needed indicator development work and to identify structure and resources to collaboratively measure and report indicator results. Assist RIDEM in updating state monitoring strategy, 2010 water quality assessment, nutrient criteria development, and improving public understanding of indicators (as resources allow).	<i>All NBEP staff involved; will seek additional resources from partners who support use of indicators (.45 FTE)</i>
1-2. EPA Biological Condition Gradient Pilot Project	Continued participation in partnership project to develop and apply BCG for development of biological criteria for estuaries; with EPA Atlantic Ecology Lab, EPA Region 1, other National Estuary Programs	<i>C. Deacutis/ over next 18 months; in collaboration with USEPA AED, other NEPs (.05 FTE)</i>
1-3 Review and Update of Monitoring Strategy for Narragansett Bay	Participate in DEM process for developing an updated water monitoring strategy underway for the summer and continuing in the fall of 2009. NBEP will also take a lead role in reviewing the biological monitoring activities underway in Narragansett Bay, assessing critical gaps in information and recommending approaches for modifying or expanding programs to support reporting on ecological indicators, also under further development. Preliminary recommendations will be made regarding gaps in the biological monitoring (phytoplankton, fish, shellfish, etc) needed to provide data on ecological changes that may occur over time due to climate change, etc. Support SLP recommendations on ecological indicator development.	<i>C. Deacutis (.068 FTE)</i>
1-4. 2010 Water Quality Assessment	Participate in the RIDEM water quality assessment process by compiling and assessing relevant data ( macroalgae, DO surveys, etc.) in the context of water quality criteria; and participating in RIDEM meetings on the assessment of estuarine waters	<i>C. Deacutis (.066 FTE)</i>
1-5 Nutrient Criteria Development	Facilitate discussion among managers, researchers and other stakeholders as a first step toward building consensus for an approach to developing nutrient criteria for Narragansett Bay and other estuarine waters.	<i>C. Deacutis (.066 FTE)</i>
1-6. NOAA Coastal Hypoxia Research Project (CHRP)	Participate in NOAA-funded partnership project to model hypoxia formation and its ecological impacts on Narragansett Bay; with URI GSO, Brown Univ. Linked to DO survey work and data	<i>C. Deacutis – lead for NBEP; with URI, Brown, VIMS; support from L. Lambert (.10 FTE)</i>

## Attachment 5: Narragansett Bay Estuary Program - FY2009 Workplan Actions

July 1, 2009 – June 30, 2010 funding period

<u>Project/Activity Name</u>	<u>Project/Activity Description</u>	<u>Staff assigned/schedule</u>
<p><b><i>Outputs - Objective 1.A. Synthesize, analyze and interpret Bay ecosystem data; support use of NBEP-developed Bay ecosystem indicators</i></b></p> <ul style="list-style-type: none"> <li>• Technical stakeholder workshop on Bay indicators and options for indicator reporting system (November 2009)</li> <li>• Indicator workshop recommendations summarized in short policy paper (December 2009)</li> <li>• Participation in meetings concerning bay monitoring and the update to the RI Water Monitoring Strategy being coordinated by RIDEM (2009-2010)</li> <li>• Report documenting recommendations to monitoring to support reporting on ecological indicators in Narragansett Bay and other estuarine waters (Spring 2010)</li> <li>• Report summarizing assessment of relevant NBEP generated data sets ( DO surveys and macroalgae) and other data as appropriate ( NCA) to be used in RIDEM statewide water quality assessment process (December 2009)</li> <li>• Participation in water quality assessment meetings (Winter 2009-2010)</li> <li>• Background memorandum on nutrient criteria development based on review and summary other states' nutrient criteria efforts with outline for potential strategy for Bay criteria development; strategy to include technical meetings on estuarine nutrient criteria development for RI, including recommended actions (Spring 2010)</li> <li>• Preliminary review of Bay biological monitoring data as part of ecological indicator development and to determine applicability in development of Biological Condition Gradient project – dependent on EPA project schedule</li> <li>• Ongoing participation in Coastal Hypoxia Research Project (2009-2010)</li> </ul>		
<p><b><i>Objective 1.B. Collect needed ecological data based on stakeholder priorities and level of program or partner resources available (.50 FTE)</i></b></p>		
<p>1-7. FY2009 Dissolved Oxygen Surveys</p>	<p>Targeted monthly seasonal dissolved oxygen field surveys; equipment and data management; mapping (Brown Univ. work) partnership with RIDEM, URI, Brown with some Bay Window funding support. Work with partners to analyze and summarize results.</p>	<p><i>C. Deacutis, L. Lambert, T. Delp/Spring &amp; Summer 2009 (.30 FTE)</i></p>
<p>1-8. FY2009 Macroalgae Surveys</p>	<p>Monthly seasonal helicopter flight surveys; high resolution color photography; field truthing work; photo data analysis and management; working with EPA Atlantic Ecology Division lab. Work with partners to analyze and summarize results.</p>	<p><i>C. Deacutis, L. Lambert, T. Delp; collaboration with USEPA AED /Spring &amp; Summer 2009 (.15 FTE)</i></p>
<p>1-9. Participation on Bay Window Steering Committee</p>	<p>Continued NBEP participation in NOAA-funded bay monitoring program; provide technical advice to committee on indicator/monitoring needs and survey requirements</p>	<p><i>C. Deacutis – 12 month review period (.05 FTE)</i></p>
<p><b><i>Outputs - Objective 1.B. Collect needed data based on priorities and level of program or partner resources available</i></b></p> <ul style="list-style-type: none"> <li>• Five targeted dissolved oxygen surveys in Upper and Mid Bay (May-Sept 2009)</li> <li>• Annual summary of monitoring results posted on NBEP web site and shared with partners (December 2009)</li> <li>• Five Bay macroalgae survey overflights; high resolution photos of nearshore areas (May-Sept 2009)</li> <li>• Macroalgae density map (JPG) posted on NBEP web site for year of monitoring (December 2009)</li> </ul>		

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<u>Project/Activity Name</u>	<u>Project/Activity Description</u>	<u>Staff assigned/schedule</u>
<p><b><i>Objective 1.C. Develop and disseminate timely and meaningful information on the condition of the Bay and its associated watersheds based on scientific and public communication needs (.48 FTE)</i></b></p>		
1-10. Completion of Status & Trends Public Report and Development of Online Component	Production and distribution of public summary report from the Status & Trends report and the Currents of Change Stakeholder Workshop; final revisions to the Status & Trends technical report; development of online component of technical report through applied web technologies	<i>T. Ardito – lead but all NBEP staff involved; will seek additional resources from partners (.15 FTE)</i>
1-11. Support Governmental Technical Reviews to Protect Ecosystem Resources	a. Provide technical review and comment to RIDEM Site Remediation Program and assist in in-bay assessments of condition of intertidal/subtidal areas adjacent to Navy hazardous waste sites for use in remediation plans; b. C. Deacutis is overseeing the biological impact review of the renewal of National Grid's Manchester St. Power Plant at the request of RIDEM; reviewing biological study plans, model study designs and impingement technology review, organizing advisory panel; summarizing recommendations and comments	<i>C. Deacutis/ over next 12 months (.08 FTE)</i>
<p><b><i>Outputs - Objective 1.C. Based on scientific and public communication needs, develop and disseminate timely meaningful information on the condition of the Bay and its associated watersheds</i></b></p> <ul style="list-style-type: none"> <li>• Narragansett Bay Region Environmental Status &amp; Trends Summary Public Report (July 2009)</li> <li>• S&amp;T Technical Report (July 2009)</li> <li>• S&amp;T website, Version 1 completed August 2009. Maintained on an on-going basis.</li> <li>• Technical review reports on state permitting and remediation projects (dependent on DEM permitting timetables)</li> </ul>		

***Workplan Goal 1 Outcomes:***

***Objective 1.A. Synthesize, analyze and interpret Bay ecosystem data; support use of NBEP-developed Bay ecosystem indicators***

- Consensus on Bay ecosystem ecological indicators forms basis for ecosystem monitoring by scientists and managers.
- Better understanding of the causes and impacts of hypoxia on Bay ecosystem drives management solutions.

***Objective 1.B. Collect needed data based on priorities and level of program or partner resources available***

- Improved understanding of Bay and watershed resources quality is applied to management decisions and results in improved conditions.

***Objective 1.C. Based on scientific and public communication needs, develop and disseminate timely meaningful information on the condition of the Bay and its associated watersheds***

- Emerging consensus on ecosystem priorities builds support for management actions.

## Attachment 5: Narragansett Bay Estuary Program - FY2009 Workplan Actions

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*Workplan Goal 2: Collaborate with stakeholders and the public to lead a Narragansett Bay regional effort to establish a watershed based framework that incorporates green infrastructure principles for addressing key management issues in R.I. and Massachusetts.*

<u>Project/Activity Name</u>	<u>Project/Activity Description</u>	<u>Staff assigned/schedule</u>
<p><b><i>Objective 2.A. Engage the public and Bay/watershed stakeholders in developing agreed upon goals and objectives that will guide watershed action (.65 FTE)</i></b></p>		
2-1. Development of Goals and Objectives for the Bay Ecosystem	Engage the public and stakeholders in identifying priorities for guiding bi-state watershed ecosystem action, building on existing planning work such as the RIBRWCT Systems Level Plan, the RI State Guide Plan, Massachusetts watershed plans, coastal zone management plans, and others; use public participation methods to gain feedback on goals, priorities and needed actions; report on results of public effort; results to form basis for revised CCMP	<i>R. Ribb – lead/ all staff involved (.65 FTE)</i>
<p><b><i>Outputs - Objective 2.A. Use inclusive methods to engage the public and Bay/watershed stakeholders in developing agreed upon goals and objectives that will guide watershed action</i></b></p> <ul style="list-style-type: none"> <li>• Preliminary Bay region vision, goals and objectives summarized based on existing goals, newly-identified goals, and public and stakeholder input on goals; coordination and collaboration with ongoing planning initiatives in R.I. and Mass. (March 2010)</li> <li>• Presentations on vision/goals/objectives to key stakeholders throughout the region to gather and incorporate feedback (at least 3 by May 2010)</li> <li>• Narragansett Bay Journal issue focused on Bay vision/goals driving readers to the NBEP web site where additional information is posted (June 2010)</li> </ul>		
<p><b><i>Objective 2.B. Establish/facilitate institutional networks among stakeholders to implement solutions based on identified management priorities for the Bay watershed ecosystem (.42 FTE)</i></b></p>		
2-2. Building a Sustainable Framework for Managing Freshwater Resources	NBEP participates in the work of the Coalition for Water Security, advocating for effective water management in R.I. in particular stream flow standards; tasks include hosting forums; developing draft ordinances; educating the public; seeking additional grant funding to support coalition work; provide information for use in policy decisions	<i>M. Kerr - lead/ ongoing (.22 FTE)</i>
2-3. Creating Sustainable Transportation Policies for the Bay Watershed	With partner resources and foundation funding, work with the Coalition for Transportation Choices to develop and implement sustainable transportation policies as a critical element of an integrated green infrastructure approach for the Bay watershed.	<i>M. Kerr – lead (.15 FTE)</i>

## Attachment 5: Narragansett Bay Estuary Program - FY2009 Workplan Actions

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<u>Project/Activity Name</u>	<u>Project/Activity Description</u>	<u>Staff assigned/schedule</u>
2-4. Continued development of Packard Foundation Pilot Project to assess and enhance the use of EBM methods for the Bay Ecosystem	NBEP is one of the NEPs engaged in developing a pilot project with support from the Packard Foundation's EBM Initiative to advance EBM practices in NEP coastal watersheds; seek to bring Packard technical assistance and support actions like Biological Condition Gradient work, ecological indicators development, habitat protection activities, and green infrastructure practices	<i>R. Ribb – lead/ all program staff involved (.05 FTE)</i>
<p><b><i>Outputs - Objective 2.B. Identify management priorities for the Bay and its watershed based on goals and objectives by working collaboratively with Bay and watershed stakeholders through institutional networks that implement solutions</i></b></p> <p><i>Sustainable Framework for Managing Freshwater Resources outputs (NBEP plus partners)</i></p> <ul style="list-style-type: none"> <li>● Conference on streamflow (November 2009)</li> <li>● Provide technical assistance to communities to incorporate demand management standards (dependent on passage of Water Use &amp; Government Efficiency Act)</li> <li>● Provide assistance to the WRB, Town of North Kingstown, DEM, QDC and other partners on the Hunt-Annaquatucket-Pettaquamscutt (HAP) Pilot. Ensure that the pilot tests water conservation strategies, quantifying costs and public response. (Over grant period)</li> <li>● Updated web site (<a href="http://www.coalitionforwatersecurity.org">www.coalitionforwatersecurity.org</a>) with information on conservation, streamflow, HAP pilot (July 2009)</li> </ul> <p><i>Sustainable Transportation Policies for the Bay Watershed (NBEP plus partners)</i></p> <ul style="list-style-type: none"> <li>● New partner organizations representing diverse backgrounds sign on to Coalition (at least 5 new organizations by December 2009)</li> <li>● Transit conference to promote sustainable transportation vision and financing solutions (January 2010)</li> </ul> <p><i>Packard Foundation Pilot</i></p> <ul style="list-style-type: none"> <li>● Proposal to Packard Foundation for using NB Region to test and/or enhance ecosystem management strategies (timing of submission dependent on negotiated project scope and Packard commitment of project resources)</li> </ul>		
<p><b><i>Objective 2.C. Provide technical assistance and information to inform and build capacity of conservation agencies and organizations throughout the Narragansett Bay Region (.51 FTE)</i></b></p>		
2-5. Strengthen the Business and Technical Capabilities of Conservation Organizations to Build Implementation Capacity	Participate in an infrastructure collaborative project with R.I. Land Trust Alliance to build NGO capacity to implement conservation projects by providing donor/member services and volunteer management for a network of local organizations with plans to expand client base; with additional funding from the R.I. Foundation and Third Sector of New England	<i>M. Kerr - lead/ ongoing (.08 FTE)</i>

## Attachment 5: Narragansett Bay Estuary Program - FY2009 Workplan Actions

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<u>Project/Activity Name</u>	<u>Project/Activity Description</u>	<u>Staff assigned/schedule</u>
2-6. Participation in Regional/Collaborative Stormwater Management Activities	Participate in collaborative actions to promote stormwater management/green infrastructure/Low Impact Development solutions and technologies including the RIBRWCT Stormwater Collaborative, RI NEMO efforts, and Mass. stormwater management activities to support goal of reducing impacts of impervious surfaces; NBEP focus is ecological impacts of stormwater and green infrastructure solutions; Work with RIDEM, BRWC, RIBRWCT, & National Park Service on development of a regional, bi-state project targeting improved stormwater management in the Blackstone River watershed.	<i>M. Kerr – lead/all staff involved (.20 FTE)</i>
2-7. Production of Technical Assistance Workshops and the Land & Water Summit 2010	Provide at least 2 workshops for grassroots conservation organizations on topics identified through outreach to local groups; develop and produce, with partners, the 7 <sup>th</sup> annual Land & Water Summit to provide training and networking opportunities for conservation organizations.	<i>M. Kerr – lead/ L. Lambert Summit on March 27, 2010 (.18 FTE)</i>
2-8. Building and Promoting Recreational Connections to Narra. Bay Resources	Ongoing NBEP effort to support and organize work of the RIBA to develop a water trail network ( <i>Blueways</i> ) linking rivers, lakes, and ponds to the Bay; promote trail use and expand to include land trails in future	<i>M. Kerr – lead/ ongoing (.05 FTE)</i>
<p><b><i>Outputs - Objective 2.C. Provide technical assistance and information to inform and build capacity of conservation agencies and organizations throughout the Narragansett Bay Region</i></b></p> <ul style="list-style-type: none"> <li>● At least 5 new organizations adopt CRM (customer relation management) software (Salesforce is preferred) and agree to share experience and learning with the larger network (May 2010)</li> <li>● Donor/Member workshop (September 2009) and at least one other workshop for strengthening conservation organizations</li> <li>● Participation in RIBRWCT Stormwater Collaborative and other watershed stormwater initiatives; seek federal resources to support these efforts</li> <li>● Land &amp; Water Conservation Summit (March 27, 2010)</li> <li>● Celebration for opening of Roger Williams Paddle Trail (July 2009), with map, trail markers and VIP tour</li> <li>● At least four Paddle10 celebrations with trips on rivers throughout the NB Region as well as the Bay (Summer 2009, Summer 2010). Trail Mix newsletter provides map and trip details (one issue)</li> <li>● ExploreRI.org development continues – web site includes at least 200 sites (May 2010)</li> </ul>		

## Attachment 5: Narragansett Bay Estuary Program - FY2009 Workplan Actions

July 1, 2009 – June 30, 2010 funding period

### *Workplan Goal 2 Outcomes:*

***Objective 2.A. Use inclusive methods to engage the public and Bay/watershed stakeholders in developing agreed upon goals and objectives that will guide watershed action***

- Bay stakeholders embrace goals and objectives and provide support for management priorities

***Objective 2.B. Identify management priorities for the Bay and its watershed based on goals and objectives by working collaboratively with Bay and watershed stakeholders through institutional networks that implement solutions***

- Rhode Island successfully implements water management strategies in the HAP watershed – supported by flow standards (DEM) and conservation standards (WRB). Lessons are shared statewide.
- Sustainable transportation issues are elevated on the policy agenda, including funding for RIPTA; build momentum for implementation;
- Increase grassroots organizations' ability to influence key policy decisions on water management, transportation and other policies

***Objective 2.C. Provide technical assistance and information to inform and build capacity of conservation agencies and organizations throughout the Narragansett Bay Region***

- A network of strong grassroots conservation partners advocate for watershed issues throughout the NB Region. Organizations have strong connections to their communities, supportive members and volunteers and generous donors supporting their conservation advocacy.
- The Blueway trail links rivers throughout the Narragansett Bay region to the Bay. Recreational use of the rivers increases, resulting in increased concern for watershed conservation.

## Attachment 5: Narragansett Bay Estuary Program - FY2009 Workplan Actions

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*Workplan Goal 3: Focus program activities on key restoration and protection goals that secure broad public and stakeholder support*

<u>Project/Activity Name</u>	<u>Project/Activity Description</u>	<u>Staff assigned/schedule</u>
<b><i>Objective 3.A. Implement collaborative habitat restoration projects by providing technical assistance to communities and watershed organizations (.72 FTE)</i></b>		
3-1. Bay Watershed Fish Passage Projects Implementation	Technical and process assistance to assist fish passage advocates in securing full funding for fish passage projects on watershed rivers (Blackstone, Ten Mile, Pawtuxet, Taunton, Wood-Pawcatuck). Support organizing partnership meetings; support to grant development tasks; support for public outreach/involvement tasks. Continue project/permitting oversight and public outreach actions on Pawtuxet River project; serve on interagency technical committee advising ACOE and DEM on Ten Mille River fish passage restoration construction.	<i>T. Ardito, L. Lambert/ ongoing (.47 FTE)</i>
3-2. Somerset Marsh Restoration Project	With funding secured from the Association of National Estuary Programs, the NBEP is partnering with the Mass. Wetlands Restoration Program, Save the Bay, and the Town of Somerset MA to restore an 11-acre salt marsh adjacent to the Taunton River. Oversight of ANEP/Community Based Restoration Program partnership grant to the project; serve on project partner oversight team; develop Narragansett Bay Journal article to publicize project.	<i>T. Ardito, R. Ribb/ ongoing (.05 FTE)</i>
3-3. Restoration Technical Assistance	Ongoing work to support federal, state and local agencies and NGOs undertaking or considering habitat restoration projects. For example, as requested, advise watershed councils, harbor management commissions and other stakeholders regarding restoration priorities, process, funding and approaches.	<i>T. Ardito – lead (0.1 FTE)</i>
<p><b><i>Outputs - Objective 3.A. Implement collaborative habitat restoration projects by providing technical assistance to communities and watershed organizations</i></b></p> <ul style="list-style-type: none"> <li>• Provision of technical assistance to partners engaged in installing fish passage on first four dams on the Blackstone River (over grant period)</li> <li>• Continued project management/outreach/technical assistance to Pawtuxet River dam removal project (over permitting and construction period; dependent on partner funding, construction contracting)</li> <li>• Participation in workgroups and technical support to partnership implementing fish passage at three dams of the Ten Mile River (over grant period)</li> <li>• With partners (Mass. Wetland Restoration Program, Town of Somerset, ANEP), Somerset Marsh restoration project implemented (May 2010)</li> <li>• Technical assistance/grant develop activities to other projects as they are developed (over grant period)</li> </ul>		
<b><i>Objective 3.B. Support habitat restoration policy development for the Bay and watershed and at the national level (.15 FTE)</i></b>		
3-4. R.I. Estuarine and Coastal Habitat Restoration Trust Fund Technical Advisory Committee participation	NBEP provides staff to serve on the TAC that reviews and ranks applications for annual grant cycle funding from the Trust Fund	<i>M. Kerr/ ongoing (.04 FTE)</i>

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<p><b>3-5. Restoration Policy, Planning and Advocacy</b></p>	<p>Ongoing work to facilitate ecological restoration of rivers, wetlands and other habitats throughout the Narragansett Bay Region. For example, work with Save The Bay and others to identify priorities regarding ecological restoration of rivers and propose policy and regulatory changes to facilitate ecological restoration.</p>	<p><i>T. Ardito – lead (.16 FTE)</i></p>
<p><b><i>Outputs - Objective 3.B. Support habitat restoration policy development for the Bay and watershed and at the national level</i></b></p> <ul style="list-style-type: none"> <li>• With partners on TAC for R .I. Coastal and Estuarine Habitat Restoration Trust Fund , recommendations for key coastal and estuarine habitat restoration projects to be funded (March 2010)</li> <li>• Ongoing participation in policy development/issue papers regarding river restoration, permitting, restoration priorities at state, regional and national level (over grant period)</li> </ul>		

**Workplan Goal 3 Outcomes:**

- Improved capacity of organizations engaged in restoration actions on the Blackstone, Ten Mile, Wood-Pawcatuck and Pawtuxet Rivers
- Restoration of anadromous fisheries along 30 miles of four major rivers providing ecosystem-wide benefits; produces spawning populations of migratory fish estimated at more than 420,000 returning adults per year.
- Improved Rhode Island recreational and commercial fisheries—valued at more than \$700 million annually and supports more than 15,000 jobs.
- Improved coastal habitat from implementation of priority projects funded under the R.I. Coastal and Estuarine Habitat Restoration Trust Fund

## Attachment 5: Narragansett Bay Estuary Program - FY2009 Workplan Actions

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*Workplan Goal 4: Work with NBEP Management Committee and other partners and stakeholders to promote implementation of the Narragansett Bay CCMP and direct program work to priority areas*

<u>Project/Activity Name</u>	<u>Project/Activity Description</u>	<u>Staff assigned/schedule</u>
<b>Objective 4.A. Strengthen internal program management and planning (.42 FTE)</b>		
4-1. Workplan development	Work with program staff, EPA, Management Committee and partners to determine how best to assign staff resources and which projects to implement based on goals and priorities from CCMP and other planning processes; FY2009 application to be submitted June 2009	<i>R. Ribb – lead/ annual task (.12 FTE)</i>
4-2. Grants management	Developing budgets, grants narratives, etc. for main EPA and other grants to the program; liaise with EPA, URI, RIDEM, RINHS and other organizations	<i>R. Ribb – lead on EPA program grant (.12 FTE)</i>
4-3. Program planning; staff management	Oversee program strategic, logistical, and project planning; oversee staff workplans and assignments, and personnel evaluations and issues	<i>R. Ribb – lead/ ongoing (.12 FTE)</i>
4-4. Grant/Program Reporting	Provide timely reports on program activity to EPA, EPA Region 1, Management Committee, and Bay stakeholders; report under Government Results and Performance Act – habitat acreage protected or restored as well measurements of program progress.	<i>R. Ribb – lead/ annual tasks (.06 FTE)</i>
<b><u>Outputs - Objective 4.A. Strengthen internal program management and planning</u></b> <ul style="list-style-type: none"> <li>• Annual NBEP workplan application (June 2010)</li> <li>• EPA and other grants management and reporting [grants, GPRA, reports to NBEP Management Committee] (over grant period)</li> <li>• NBEP strategic planning activities targeting funding, communications, scientific needs, program operation, interaction with other organizations and EPA (over grant period)</li> <li>• Program and project budgeting (June 2010)</li> <li>• Program personnel management, staff evaluations, training and task assignments (over grant period; annual staff evaluations – June 2010)</li> </ul>		
<b>Objective 4.B. Strengthen program oversight and interaction with external stakeholders (.30 FTE)</b>		
4-5. Integrated Ecosystem Planning	Oversee effort to ensure CCMP integration with other state, regional and federal planning initiatives in ways that maximize effectiveness and coordination consistent with Clean Water Act Section 320 mandate - as part of this, complete statement detailing coordination of CCMP and Systems Level Plan; participate with RIBRWCT and other parties in R.I. Statewide Planning's workplan task to develop overarching watershed planning policy that draws on the SLP and the CCMP; creation of and support to NBEP Policy Committee;	<i>R. Ribb – lead/ ongoing (.10 FTE)</i>

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<u>Project/Activity Name</u>	<u>Project/Activity Description</u>	<u>Staff assigned/schedule</u>
4-6. Program Participation & Representation in Key Watershed Actions and Initiatives	Interaction with stakeholders and organizations to bring NBEP resources to varied key ecosystem management and public involvement efforts; representing the NBEP on local, regional and national technical and policy committees, reviews, policy discussions and initiatives	<i>R. Ribb – lead/ All NBEP staff are involved (.10 FTE)</i>
4-7. Committee Management	Organize Management and other committee meetings; develop agendas, meeting materials, meeting summaries, and other reports	<i>R. Ribb – lead/ ongoing; support from. L. Lambert (.10 FTE)</i>
<p><b><i>Outputs - Objective 4.B. Strengthen program oversight and interaction with external stakeholders</i></b></p> <ul style="list-style-type: none"> <li>• Organization of quarterly meetings of the NBEP Management Committee (agenda, meeting materials, information, notices)</li> <li>• Publication of NBEP Quarterly Reports</li> <li>• Creation of NBEP Policy Committee (timeframe dependent upon agreement of parties to participate) (August 2009, if parties agree to participate)</li> <li>• Participation in R.I. Statewide Planning watershed policy document (over SWP project period)</li> <li>• Statement detailing coordination of CCMP with RIBRWCT Systems Level Plan as well as with other planning efforts.(Sept. 2009)</li> </ul>		
<p><b><i>Objective 4C. Build support for CCMP implementation by effectively tracking progress and communicating successfully with a wide variety of audiences and partners (.50 FTE)</i></b></p>		
4-8. Narragansett Bay Journal	Publish one hard copy issue of the NBJ for broad distribution through insert in regional newspaper group and three electronic issues via Constant Contact	<i>T. Ardito, L. Lambert; Fall 2009, Winter 2010, Spring 2010, Summer 2010 issues (.25 FTE)</i>
4-9. Participation and Organization of Outreach Events	Participate/support outreach events including the R.I. Salt Water Anglers Fishing Show; organization of outreach event when the EPA research vessel the Bold is docked at URI GSO in August 2009	<i>L. Lambert – lead; all staff involved (.10 FTE)</i>
4-10. NBEP Website	Keeping website current; researching website constructs that will allow NBEP staff to more easily maintain/update website; provide timely and useful data for bay stakeholders and the public; maintain and update Status & Trends section	<i>L. Lambert – lead; all staff involved/ ongoing (.125 FTE)</i>
4-11. NBEP Communications Strategies	Evaluate and implement ways to maximize impact of NBEP communications including website innovations and revisions; measuring communications efforts; exploring new technologies (e.g., social networking tools) or approaches, etc.	<i>T. Ardito/R. Ribb and program staff – ongoing (.05 FTE)</i>
<p><b><i>Outputs - Objective 4.C. Build support for CCMP implementation by effectively tracking progress and communicating successfully with a wide variety of audiences and partners</i></b></p> <ul style="list-style-type: none"> <li>• One hard copy annually for broad watershed distribution and three electronic editions annually of the Narragansett Bay Journal</li> <li>• Ongoing development, content management and effective use of the NBEP website</li> </ul>		

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<u>Project/Activity Name</u>	<u>Project/Activity Description</u>	<u>Staff assigned/schedule</u>
	<ul style="list-style-type: none"> <li>• Ongoing use and development of online tools such as wikis to enhance NBEP work</li> <li>• Identify and review communications tools and technologies for potential use to improve effectiveness of NBEP work</li> <li>• Organize and participate in public outreach events including NBEP organization of outreach event when the EPA research vessel the Bold is docked at URI GSO in August 2009 and RISAA show April 2010</li> <li>• Provide Bay ecosystem and program information to local, state and federal officials and Congressional delegation members (ongoing)</li> </ul>	

***Workplan Goal 4 Outcomes:***

- Program effectively targets priority actions in CCMP based on Management Committee guidance
- Effective program management increases accountability and promotes adaptive management
- NBEP program resources are strategically used to support CCMP implementation; strategic alliances/collaboratives increase implementation effectiveness
- NBEP communications reach and inform Bay and watershed stakeholders and decision-makers, building a stronger constituency for environmental protection and restoration