



**Narragansett Bay Estuary Program**  
**FY2002 WORKPLAN**  
Oct. 2001 – Sept. 2003 (2 year grant period)

**Program Goals, Mission & Description**

**Narragansett Bay Comprehensive Conservation and Management Plan Goals -  
December 1992**

- To prevent further degradation and incrementally improve water quality in developing coastal areas with deteriorating water quality;
- To protect diminishing high quality resource areas throughout the Bay watershed;
- To more effectively manage commercially, recreationally, and ecologically important estuarine-dependent living resources;
- To rehabilitate degraded waters in the Bay watershed and restore water quality-dependent uses of Narragansett Bay;
- To establish necessary interstate and interagency agreements and mechanisms to coordinate and oversee implementation of the Narragansett Bay Comprehensive Conservation and Management (CCMP).

**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.

**Program Description:**

The purpose of this program is to conduct programs, studies, and initiatives that protect, preserve, and restore the Narragansett Bay estuary and its watershed. Created as part of the federal Clean Water Act in 1987, the Narragansett Bay Estuary Program (NBEP) developed a Comprehensive Conservation and Management Plan (CCMP) for Narragansett Bay and its watershed. Since 1993, when the program became part of the RIDEM Office of Water Resources, work has focused on implementing the high priority actions from the CCMP. These actions include providing technical assistance to municipalities and citizen groups, developing management plans for bay resources, coordinating watershed planning activities, funding public education programs, promoting local involvement in bay protection and restoration actions, identifying, mapping, and restoring critical habitat areas, improving environmental regulations, developing bay-related legislation, reducing impacts of point and nonpoint source pollution (e.g., toxics, nutrients, suspended solids, bacteria, etc.), identifying emerging issues, informing the public of Bay issues and efforts, bringing innovative techniques and technologies to Bay management efforts and coordinating the activities of many partners in implementing the CCMP.

**2001- 1 Administrative & Technical Support to the Partnership for Narragansett Bay (PNB):** Since the formation of the Partnership for Narragansett Bay in 2000 under the auspices of the University of Rhode Island's Coastal Institute, the NBEP has allocated significant resources toward serving as staff to the effort, organizing meetings and notes, organizing PNB technical workshops and conferences, and providing a contact point for the stakeholder group. In addition to NBEP staff time dedicated to the PNB, NBEP funding (\$75,000) is providing contractual services to support PNB initiatives over the next fiscal year. Target date for completion: Ongoing program activity. Cost: \$75,000 plus staff resources.

**2001- 2 CCMP revision through PNB process:** As part of the PNB effort to implement the recommendations resulting from the Narragansett Bay Summit 2000, the PNB is developing options for integrated planning for the Bay and watershed. Implementation of a new model of stakeholder-based collaborative planning that identifies priority actions and pool resources to address issues would constitute a revised CCMP. The NBEP is working with the PNB to develop a framework for this effort that the PNB can review and refine. Target date for completion: Fall 2002. Cost: \$8,000 plus staff resources.

**2001- 3 Administering the Bay Partnership Grant Program under the PNB:** The NBEP and Massachusetts Executive Office of Environmental Affairs have joined forces and funding to create a bi-state environmental grant program, the Bay Partnership Grants. The Bay Partnership grants are designed to address the recommendations from the Bay Summit and have fewer restrictions on eligibility. Cost: \$55,000 (FY2000 funding) plus staff resources. If competitive grant funding and non-federal match resources allow, the NBEP will contribute new fiscal year funds to this grant program for the upcoming year. Target date for completion: September 2002. Cost: Staff resources plus potential cash contribution.

**2001- 4 PNB Environmental Indicators Workshop:** The NBEP received supplemental EPA funding to work on development of environmental indicators for the Bay and watershed. This is being implemented under the PNB process using a phased approach. As a first step, the NBEP and the PNB held a Bay monitoring workshop in June 2001 to provide an overview of monitoring activities for the Bay and watershed and to identify data gaps and challenges in meeting monitoring needs. In the upcoming year, the NBEP, with the PNB, will produce the next step in this process - an Indicators Workshop in Fall 2001. The workshop will draw on the results of the monitoring workshop as well as the work of NBEP staff and the experience of other states and watershed management efforts with indicator models. Guest speakers with expertise in developing and using such indices will interact with workshop participants as they develop an action agenda for watershed use of environmental indicators. Target date for completion: Fall 2001. Cost: \$7,000

**2001- 5 Monitoring Strategy/Environmental Indicators:** Using the results of the Monitoring and Indicators workshop, the NBEP will work through the PNB process to develop an Indicators index, with associated Monitoring Strategy, that is achievable, cost-effective and successfully informs the public and decision-makers about the status of the Bay and watershed. The NBEP has funded a Brown University student to assist in reviewing and summarizing information on estuarine indicators over the Summer 2001 at a cost of \$2,500. Target date for completion: Fall 2002. Cost: \$15,000

**2001- 6 Sponsorship/Participation in the University of R.I. 2001 Honors Colloquium – A Sustainable Future:** This year-long colloquium will bring in internationally recognized speakers from a wide spectrum of fields to address and debate the interdependence of natural, economic and social systems in the contemporary and future world. In particular, the NBEP is sponsoring

a day-long component of the initiative focusing on the application of adaptive management methods entitled *Sustainable Use of Rhode Island's Coastal Ecosystems: Managing a Moving Target* to take place on November 10, 2001 in Kingston, R.I.

**2001- 7 Participation/Partner in a Coastal Institute Proposal to the National Science**

**Foundation:** The NBEP will, pending award of funding, participate in a grant project entitled *Adaptive Management in Coastal Ecosystems: An Integration of Natural Science, Social Science, Governance and Technology*. The grant outcome is to enhance the solution of environmental problems in coastal ecosystems by bringing together academic experts and resource management practitioners from science, policy and management fields to direct investigations into the development of an adaptive management framework that will promote communication and collaboration on addressing ecosystem issues. Interdisciplinary teams will focus on the connections between research, governance, and resource management and allocation. The project will also create opportunities for graduate-level fellows to work and assist project partners on multi-disciplinary investigations and initiatives. Cost: through NSF funding (if awarded).

**2001- 8 EPA National Estuary Program *Futures* Grant Proposal:** The EPA Office of Water, Coastal Management Branch, which oversees the National Estuary Program, has competitive grant funding available under the *Futures* grant program. The intention of this program is to encourage the use of modern visioning techniques, sustainable development strategies and smart growth initiatives in NEP watersheds. This project will take advantage of the recently completed Blackstone Valley Buildout Analysis data by incorporating it into an outreach strategy to assess public knowledge of the impacts of growth and develop mechanisms to effectively deliver information on growth impacts and management techniques to a broad audience in the Blackstone Valley watershed communities. The data will be used to provide analysis on community impacts in terms of open space, transportation, tax rates, school population, etc. Visual visioning technologies are a possible component e.g., 3D community visioning Web-based software program such as the one used for the City of San Carlos, CA. See <http://www.ci.san-carlos.ca.us/vision/seevision/index.html>. Modern marketing techniques would be applied using the expertise of the business academic community. Bryant College has an agreement with RISD to work together on projects that benefit the State; RISD expertise could be used in development of various graphic and Web-based materials. Project goals include: (a) assessing the knowledge level of citizens in Blackstone Valley communities regarding growth, its effects and possible actions that could be taken to accommodate growth while sustaining environmental and economic health; (b) broadcasting the results of the Blackstone Valley Buildout Analysis and other information regarding growth and its impacts in an easily accessible and understandable form to the citizens of the Blackstone Valley; (c) accessing the expertise of the business academic community by using modern marketing and information systems to assist in meeting environmental goals; and (d) creating opportunities for public/private sector partnerships to meet environmental goals. Besides the NBEP, partners that have expressed interest in partnering on this project include Bryant College, Blackstone River Valley National Heritage Corridor Commission, URI Coastal Resources Center, local municipalities, Grow Smart RI, Mass. Executive Office of Environmental Affairs, and Mass. Regional Planning Districts. Estimated cost: \$65,000 (with \$35,000 from *Futures* program with balance from partner contributions).

**2001- 9 Draft Elements of a Feasibility Study for Bay Island Park & Trail System:** The small islands of Narragansett Bay provide exceptionally valuable habitat for shorebirds and shellfish and are significant cultural and scenic resources as well. Prudence, Patience and Hope Islands form the Narragansett Bay National Estuarine Research Reserve (NBNERR),

while Rose, Dutch and Gould Islands are publicly-owned resource areas. Over a decade ago, there was interest in creating a Bay Island Park system; some information and reports were developed before the project faded into the background. With new state bond funds becoming available for land acquisition, a booming recreational tourism economy (and abundance of kayakers) and new efforts to enhance water-based transportation options, it is an opportune time to revisit this issue and to assess opportunities for creation of such a system.

Several states and localities have created successful island park ventures with educational and economic benefits for residents. Two different examples are the Boston Harbor park system (with ferry-based tourism) and the Maine island trails system (catering to camping and kayaking enthusiasts). The islands of Narragansett Bay are somewhere in between the urbanized Boston setting and Maine's isolated and thinly-settled islands, requiring a different island park strategy than either, while drawing on what has proven successful in those and other cases. Through the R.I. Governor's Office Intern Program, the NBEP has secured the services of an environmental studies student who will be assigned to collect, organize and review all previous studies and data about the Bay islands and to collect and review information on related systems from across the U.S., identifying the elements of success as well as challenges being faced by those various efforts. The NBEP will work closely with the NBNERR, DEM Divisions of Fish & Wildlife, Planning & Development and Parks & Recreation, Rose Island Foundation, the R.I. Coastal Resources Management Council (CRMC) and others to investigate options for a management plan that enhances the public's ability to access and enjoy the Bay's small islands while protecting and restoring island habitats. The final product would be a preliminary feasibility study for creation of such a system. Target date for completion: Winter 2001. Cost: Intern time paid by R.I. Governor's Office (\$1,000 nonfederal funds); \$1000 in report production and publishing costs plus NBEP staff time.

**2001- 10 Third Annual Dissolved Oxygen Survey of Upper Narragansett Bay:** In July, August and September of 2001, the NBEP will organize and implement the third annual collaborative Dissolved Oxygen Survey of Upper Narragansett Bay. This effort, initiated and coordinated by the NBEP, brings together teams of scientists, managers, advocates, citizens and the private sector to conduct a series of overnight monitoring surveys at approximately 80 stations in the Upper Bay. The project is made possible by the donation of staff and volunteer time and use of boats, sampling equipment and other resources. The NBEP provides overall coordination, funding for fuel, sampling equipment, and other survey needs and is using an environmental studies intern from the R.I. Governor's Intern Program to assist with survey coordination and production. Target date for completion: Fall 2001. Cost: Intern time paid by R.I. Governor's Office (\$1,000 nonfederal funds); \$2,000 plus staff resources.

**2001- 11 Fish Trawl Survey GIS Mapping and Data for Key Species:** This project will create GIS maps showing species abundance over time at sampling stations throughout the Bay. The partnership project will be conducted by the Narragansett Bay National Estuarine Research Reserve on-site research coordinator, funded with restoration funds from the R.I. Oil Spill Prevention and Response fund. This effort will bring these data into a graphical, digital and easily updated format that will support better analysis for fisheries management and habitat restoration initiatives. Estimated cost: \$7,000.

**2001- 12 Bay Monitoring Actions:** The NBEP will continue to participate in the planning process for the "Bay Window" monitoring system by serving on the Cooperative Bay Monitoring Steering Committee. The program will work with partners on finding additional resources to expand and enhance the system. The NBEP will also continue to serve as state contact for the EPA Coastal Assessment effort (formerly Coastal 2000 Monitoring) and will collaborate with

EPA Atlantic Ecology Division. An additional focus will be expansion of the Narragansett Bay NERR system-wide monitoring network to include two new sites for continuous sampling of dissolved oxygen, temperature, salinity, and possibly nutrients.

**2001- 13 Investigative Report on Ballast Water Management Planning:** The R.I. Legislature, in June 2001, passed H. 6506, which requires the state to investigate and evaluate all relevant state, federal, and international laws and policies relating to invasive species management generally and ballast water specifically. This information would be synthesized into a report to the State Legislature by January 15, 2002 and would include recommended options for establishing a ballast water management program in Rhode Island. The NBEP has already invested some time in this issue, by acting as advisor to analytical work done by a Brown University graduate student. Estimated cost: \$12,000 in staff time.

**2001- 14 Coastal Habitat Baseline Inventory/GIS Mapping & Database, Restoration Analysis, and Wetland Loss Trends Analysis:** As part of a sequence of habitat restoration inventory and restoration analysis projects, the NBEP will coordinate and invest significant staff resources into the development of the following:

- Completion of database linkages (themes and geographic areas) for the Narragansett Bay Habitat Restoration Analysis GIS databases and maps (est. cost: \$8,000);
- Completion of the Coastal Wetlands Loss Trend Analysis for Narragansett Bay (funded through RI Aquafund);
- Development of the R.I. South Shore coastal ponds baseline coastal habitat maps (dependent on securing funding – est. cost: \$55,000);
- Initiation of the R.I. South Shore Coastal Habitat Restoration Analysis (dependent upon funding – est. cost: \$100,000);
- Initiation of the Coastal Wetlands Loss Trend Analysis for R.I. South Shore coastal ponds (dependent on securing funding – est. cost: \$50,000).

**2001- 15 Coastal Habitat Restoration Coordination and Implementation Actions:** The NBEP will coordinate and invest significant staff resources in the following projects:

- Coordinate Town Pond (Boyd's Marsh) Salt Marsh Restoration Project: NBEP serves as State sponsor for this \$2 million habitat restoration project in Portsmouth, R.I., working closely with the U.S. Army Corps of Engineers (ACOE), Aquidneck Island Land Trust, Town of Portsmouth, and others. NBEP is assisting the ACOE in completing a restoration plan by November '01 and to begin construction in late '02.
- Coordinate Ten Mile River Fisheries Restoration Project: NBEP serves as State sponsor for this \$1.5 million habitat restoration project in East Providence, R.I., working closely with the ACOE, Save The Bay, Inc., City of East Providence, and others. The NBEP expects to assist the ACOE in completing a Feasibility Study by the summer of '02; the NBEP will seek construction funds in order to develop plans and specifications and begin construction of fish passage facilities as soon as possible thereafter.
- Complete Blackstone River Fisheries Restoration Plan and Coordinate Restoration Project: In early '01 the NBEP was awarded a small grant (\$49,000) from the R.I. Aqua Fund to develop a fisheries restoration plan for the Blackstone River in Northern Rhode Island and Massachusetts. NBEP is working with Kleinschmidt Associates, private interests, and others to complete the plan in late '01. NBEP will then continue to move toward project implementation and intends to seek external funding for outreach, engineering, design and ultimately construction of fish passage facilities.
- Coordinate R.I. Habitat Restoration Team: continue to work with CRMC and Save The Bay to coordinate this inter-agency, interdisciplinary team to promote restoration of salt marshes, seagrass beds, fish runs and other coastal habitats.

- Develop small coastal habitat restoration project: NBEP will develop and implement a small coastal habitat restoration project, selecting from several candidate sites. Final site selection will depend on the partners and funding sources identified. Estimated cost: \$12,000.

**2001- 16 Completion of Restoration Portal Project:** This collaborative project was initiated in FY 2000 with NOAA competitive grant funding (\$270,000) and technical assistance from the NOAA Coastal Services Center. The NBEP, R.I. Coastal Resources Management Council, and the environmental advocacy/ education group, Save The Bay, co-developed this project. Entitled the "Restoration Portal", the project is producing a Web-based coastal habitat restoration plan and information system that will service agencies, organizations and citizens engaged in coastal habitat restoration projects. The NBEP will continue to work closely with CRMC, Save The Bay, and NOAA to complete this project. Target date for completion: July 2002. Cost: \$270,000 NOAA funding.

**2001- 17 Development and Submittal of New England National Estuary Programs Habitat Restoration Partnership Grant Proposal:** NBEP will work with other National Estuary Programs in New England to develop and market a proposal for a regional NEP-based mechanism for funding habitat restoration projects. NBEP will seek start-up funding from a variety of potential sources, such as a \$500,000 application to the NOAA Regional Habitat Restoration Partnership Grants program. Completion of task dependent upon external funding.

**2001- 18 Applying GIS Tools and Eelgrass Transplants to Refine Restoration Site Selection Model (R.I. Aquafund project):** The NBEP is a partner with Save The Bay, Inc., on this R.I. Aquafund grant project. This is an attempt to improve the success of eelgrass transplant restoration projects in Narragansett Bay by developing an effective and time-saving method to better evaluate potential eelgrass restoration sites. In combination with innovative planting techniques, this project uses real-world restoration experiences to refine a site selection model for use in the Bay. Cost: \$ 66,052 total (\$41,154 Aquafund, \$24,989 matching funds/ in-kind services). Completion date: January 2002.

**2001- 19 Enhance/Expanded NBEP Bay Outreach and Informational Actions:** Activities in this area, all of which will require significant staff resources, include:

- Creation of the *Narragansett Bay Journal*, modeled on the Chesapeake Bay Journal, using a contractual editor/designer. The *Journal* will provide articles about Bay science, management, cultural aspects, events, opinion pieces and will provide a central communication method for the many organizations and citizens who care about and are involved in stewardship of the Bay. It will also serve as the public outreach mechanism for reporting on Bay indicators. Estimated startup cost: \$7,500 for design services.
- Development and Production of Major Bay Environmental Festival/Educational/Public Involvement Event, Fall 2002 at Ft. Adams State Park, Newport RI (tentative event title: *Baystock*). Overall goals: raising public awareness of the value of Bay and watershed resources, promoting personal stewardship and involvement and recognition of how human activities affect the Bay's health, and highlighting the need for investment in the Bay to sustain the benefits it provides. The event will feature musical performances by national and regional level acts with links to the bay and New England. Also included will be environmental education activities, boat tours, kayak race, seafood sampling booths, environmental booths, possible 5k run. This will organized through the PNB, bringing in potential partners such as the Newport Visitor and Tourism Center, VH1, universities, U. S. Navy, EPA ORD, local high-tech firms, large RI-based corporations, state agencies, and recreational businesses. As it is just before the 2002 elections, may

have significant participation from political candidates to express their appreciation for the Bay; Target date: September 2002. Estimated cost: dependent on contributed funding, partner contributions, donations of funding and services – rough estimate: \$65,000.

- Initial development of the NBEP 10 Year Implementation Retrospective Report (for completion in late 2002). Estimated cost: \$5,000 for design and editing assistance.
- Continued expansion and development of the NBEP Website. Cost: \$2,500.

**2001- 20 Organize and Host the New England Regional Invasive Species Workshop:** The NBEP, along with the other New England NEPs and partners such as the Nature Conservancy, New England Interstate Water Pollution Control Commission, the Lake Champlain Basin Program, and the U.S. Fish & Wildlife Service, will produce a regional technical workshop on the impacts and risks from invasive species in New England as well as latest information on management plans and techniques. Estimated cost: \$ 30,000 (potential funding through Association of National Estuary Programs' grant proposal to EPA); supplemental funding through partner contributions.

**2001- 21 Rhode Island Stormwater Workshop:** Planning and production of a R.I. Stormwater Conference, slated for November 2001 with RIDEM, CRMC, DOT, Southern R.I. Conservation District, the R.I. Legislature and other partners. The workshop is intended to provide educational material to a broad audience on the impacts on polluted runoff, how the NPDES Phase II regulations are intended to address these impacts, and on technical tools and techniques that provide solutions. Presentations will be provided through contractual agreements with the Univ. of Connecticut Nonpoint Education for Municipal Officials (NEMO) program and with the Center for Watershed Protection (funded with NBEP/EPA dollars). Estimated cost: \$ 16,000 (\$6,000 from NBEP/EPA, \$12,000 in potential funding from R.I. Dept. of Transportation funding for stormwater education).

**2001- 22 Grant Proposals for Blackstone River Valley National Heritage Corridor Commission Grant Program:** The NBEP is developing two options for submittal – (1) in partnership with the Coastal Institute and R.I. Sea Grant, to write, design and publish a monograph on historical fisheries of the Blackstone River, based on a recent Coastal Institute study developed and funded by the NBEP (estimated cost: \$18,000); (2) building on the recent Blackstone fisheries restoration plan, to undertake preliminary engineering studies of fish passage facilities on the lower Blackstone (estimated cost; \$ 35,000). The NBEP will implement each of these projects contingent upon award.

**2001- 23 Program Administration, EPA Reporting Requirements, and Liaison Duties:** EPA Region I and Headquarters activities, GPRA reporting, grant administration, review/comment on federal documents, assistance to EPA Coastal Management Branch when NEP representation is needed; participation in planning and policy directions for the National Estuary Program. Cost: staff resources.

**2001- 24 CCMP Implementation Tracking Database Development:** Creation of an Access relational database with all NBEP implementation project information (project descriptions, cost information, implementing entities, outcomes, status, lessons learned) from January 1993 to the present. Cost: staff resources and \$1,500 for database consultant fee.

**2001- 25 DEM support role :** The NBEP provides support to meet DEM needs in the following areas: development and review of legislation; response to legislative inquiries; habitat restoration policy; state contact for Army Corps habitat restoration projects; participation on

state Providence River dredging project review team; development and review of DEM workplans; participating in DEM outreach planning; assisting with NPDES Phase II Stormwater implementation; assisting with project development/refinement for Clean Water Act Section 319 grant projects; representing DEM on state, federal, academic workgroups; oil spill response sampling; risk assessment reviews for DEM permitting documents; review/ comment under Executive Order 12372 of federally funded actions such as CRMC annual workplans, providing technical assistance on statewide monitoring strategy to OWR; state contact for the Coastal America Corporate Wetlands Restoration Program; and participation in ongoing development of statewide watershed approach.