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## NHEP Year 11 Work Plan

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# 2006

New Hampshire Estuaries Project



## Year 11 Work Plan

**Prepared by:**

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**June 2006**

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## OVERVIEW

The New Hampshire Estuaries Project (NHEP) is part of the U.S. Environmental Protection Agency's National Estuary Program which is a joint local/state/federal program established under the Clean Water Act with the goal of protecting and enhancing nationally significant estuarine resources.

The NHEP's *Comprehensive Conservation and Management Plan* (Management Plan) for New Hampshire's estuaries was completed in 2000 and updated in 2005. The Management Plan outlines key issues related to management of New Hampshire's estuaries and proposes strategies (Action Plans) to protect, enhance, and monitor the state's estuarine resources. Local stakeholders established the NHEP's priorities, which include water quality improvements, shellfish resource enhancements, land protection, habitat restoration, and outreach and education. Projects addressing these priorities are undertaken throughout New Hampshire's 42 community coastal watershed. In addition, the NHEP developed and now implements a comprehensive monitoring program for the coastal watershed. The NHEP collects, compiles and analyzes data for a number of environmental indicators. The NHEP finalized its communications plan, which outlines goals and strategies to shape the program's outreach and communications activities to better support Management Plan implementation.

Each year the NHEP prepares its work plan, which describes recent accomplishments and priority activities and projects to be undertaken in the next year to implement the Management Plan. The work plan is developed by the NHEP with input from NHEP's four project teams. The NHEP Management Committee reviews and approves the work plan each year. The current work plan represents the eleventh year of the NHEP's activities and involvement in collaboratively protecting, enhancing, and monitoring New Hampshire's estuaries.

Section I of this document is a report of the NHEP's activities for the past year. The section describes the activities undertaken by the NHEP to implement activities and goals identified in last year's work plan (Year Ten Work Plan: <http://www.nhep.unh.edu/resources/pdf/nhepyearten-nhep-05.pdf>); describes how the NHEP's activities helped support Clean Water Act programs; summarizes meetings and milestones from the last year; lists all ongoing projects supported by the NHEP; and reports on last year's travel.

Section II of this document describes activities and priorities to be undertaken by the NHEP as part of the new EPA grant, beginning on or around October 1, 2006. It identifies the NHEP's implementation and program goals for 2007; describes specific activities to be undertaken by NHEP staff or partners with grant funds to implement the NHEP Management Plan and Monitoring Plan; describes the NHEP's administrative structure and costs; and presents the overall budget for the Year 11 grant.

## **SECTION I: REPORT OF PAST YEAR'S ACTIVITIES**

### **I. Accomplishments and Activities Initiated to Fulfill Goals from Last Year's Work Plan (NHEP's Year 10 Work Plan)**

This section describes activities and accomplishments of the New Hampshire Estuaries Project (NHEP) for the previous year, from July 2005 to June 2006.

The NHEP set the following four goals for Year Ten implementation, as described in last year's work plan:

- 1. Continue implementation of the NH Estuaries Project Management Plan**
- 2. Continue implementation of the NHEP Monitoring Plan and ongoing environmental assessments**
- 3. Develop a long-term financing plan for the NHEP**
- 4. Integrate into the University setting**

Progress toward each of these goals over the course of the year (July 2005-June 2006) is reported below.

#### **GOAL 1: Continue implementation of the NH Estuaries Project Management Plan**

The NHEP successfully met this goal over the course of the year. In six years of Management Plan implementation, the NHEP has initiated activities for all of its 45 highest priority action plans that are part of the original Management Plan. Of these, six have been completed or fully implemented (in the case of ongoing action plans).

Specific implementation activities that were initiated or conducted over the course of the year to meet this goal are listed below. Activities listed were conducted by the NHEP or by project partners with NHEP funding or input. Further details of all ongoing projects (as of June 30, 2006) are included in the table of ongoing projects in Section 3 of the work plan.

#### **Water Quality Projects**

- 2006 community grants for storm sewer mapping, illicit discharge detection and elimination, and storm drain monitoring activities. A Request for Proposals was issued by NHDES in May 2006 to award up to \$37,500 in matching funds for community projects. Specific community projects will be selected by the end of the summer. Projects selected through the 2005 RFP process are ongoing.
- University of New Hampshire Low Impact Development Project to demonstrate several storm water management practices at two sites on campus. This project was developed in 2005 and is ongoing through September 2006. Cisterns, drip infiltration systems, and a bioretention system have been installed and are being monitored.
- Sewer extension project with the City of Portsmouth to tie in homes suspected of having failing or near failing septic systems and contributing to local water quality

problems in Little Harbor.

- The University of New Hampshire, Jackson Estuarine Laboratory, continued work on a study of nutrient loading from wastewater treatment plants and water quality in the Squamscott River. The goals of the study were to: (1) Determine conditions under which the Squamscott River experiences depressed dissolved oxygen (DO) concentrations; (2) Determine nutrient and phytoplankton concentrations, photosynthetically available radiation and DO conditions in effluent and/or river water during adverse conditions; (3) Determine other conditions and sources that may be influencing DO in local areas around sampling sites; and (4) Determine the role of WWTF effluent nutrient loading on DO levels. The final report for the study will be completed by June 30, 2006.
- Septic system outreach (WQ-13) progress included a presentation to 35 real estate agents on septic system maintenance, purchase and distribution of septic system maintenance folders for homeowners, and completion of a septic system video program for public access television. All communities in the watershed were given the program. Copies of the video were sent to all Access Centers, which supply programming to several communities. Durham, also servicing Lee, Madbury and Newmarket, ran the program three times in February. The town of Exeter, servicing Stratham, Brentwood, East Kingston and Kensington ran the program in April and May. Portsmouth and Hampton chose not to run the program. A revised, shortened version of the program will be developed and resubmitted to these stations. A web version of the program was posted on the NHEP website.
- The City of Portsmouth is completing a feasibility study to reuse treated wastewater on the City-owned golf course at Pease Tradeport. The study will be completed by June 30, 2006.

### **Shellfish Projects**

- Ongoing oyster restoration projects in Dover (Bellamy River) and Great Bay to survey beds, develop restoration protocols, implement and test restoration projects, and conduct outreach. These projects will conclude in 2006.
- Support for the NH Department of Environmental Services Shellfish Program in 2006, including contracts with NHDES and NH Department of Health and Human Services. Particular activities included laboratory analyses associated with water and tissue sampling for pollution source sampling and evaluation studies, PSP sampling, and ambient, emergency closure, and post-rainfall sampling programs.
- Gulfwatch monitoring of oyster, clam, and mussel tissue for toxic contaminants was conducted in fall 2005. NHEP staff organized and participated in the field collection and laboratory preparation of samples that will be analyzed for organics and metals. A contract for the Gulfwatch program in 2006 (mussel testing only) was established.
- The NHEP encouraged public involvement in shellfish resource issues. The Shellfish and Living Resources Team met on November 18, 2005 and May 30, 2006, which provided opportunities for input. In addition, the NHEP helped coordinate volunteer assistance with the NHEP-funded soft-shell clam research project in Hampton-Seabrook Harbor and with shellfish collection and processing

for the NH Gulfwatch Program. The NHEP also initiated a survey of oyster harvesters to report “gapers,” or unhealthy looking oysters they notice in their harvest. This information is compiled and reported to NH Fish and Game as reports are received. Finally, the NHEP is supporting the development of a pilot program to encourage oyster harvesters to return oyster shell for use in subsequent restoration projects.

- Shellfish Outreach (06-B-4)– see **Education/Outreach Projects and Activities** section below
- The NHEP extended the clam restoration project in Hampton-Seabrook Harbor being conducted by Dr. Brian Beal of the University of Maine at Machias. The project was scheduled to conclude by December 31, 2005. However, the final stage of the experiment in 2005 was disrupted by widespread mortality of the seeded clams due to heat shock. The NHEP subsequently decided to add funds to the contract with Dr. Beal to allow him to repeat the experiment. Dr. Beal submitted a lengthy interim report on his findings to date on December 31, 2005 ([www.nhep.unh.edu/resources/pdf/large-scale-manipulative-um-06.pdf](http://www.nhep.unh.edu/resources/pdf/large-scale-manipulative-um-06.pdf)). The final stage of the project will be completed by December 31, 2006.
- The NHEP led efforts to secure non-federal funding for the NHDES Shellfish Program. NHEP Management Committee members and staff worked with NHDES to evaluate options and develop and promote a funding strategy. A bill was introduced by Management Committee member and House Representative Tom Gillick for the 2006 legislative session. The NHEP lined up additional legislative support, testified at House and Senate committee meetings, and provided information to legislators and other interested parties in support of the bill. The bill passed the House in February 2006 and passed the Senate in May 2006. The bill appropriates \$175,000 of state general funds per year to support the work of the NHDES Shellfish Program beginning with state fiscal year 2007 (July 1, 2006 to June 30, 2007).

### **Land Use/Habitat Protection Projects**

- Support for the Natural Resource Outreach Coalition (NROC) program in 2006, including funding for the coordinator (NH Cooperative Extension position), community implementation projects, and NHEP staff participation in NROC planning meetings and community outreach.
- NROC community implementation projects in 2006 in Wakefield, Deerfield, and New Durham.
- The Community Technical Assistance program was continued. The following communities have requested and are receiving technical assistance through the program: Portsmouth for prime wetland designation, Greenland for development of stewardship plans for town-owned conservation lands, Newfields for a monitoring plan for town-held easements on conservation land, and Kingston for the review and development of stormwater management regulations and wetlands conservation district ordinance. Seven additional communities have applied and projects are being developed to assist those communities.
- A presentation was developed to help communities understand what buffers are, why they are important, review buffer protections in their town, and start to

formulate a plan for future buffer protection. The presentation will be given to interested communities and watershed organizations and incorporated into the NROC program in 2006.

- The NHEP supported a project by the conservation commissions for Hampton Falls and Hampton to identify and delineate prime wetlands in their communities. During the past year, the towns hired a consultant to identify candidate wetlands and held several workshops in the communities to educate the public about the need for prime wetland designation. The commissions intend to have warrants on the town meeting ballot in 2007 asking for prime wetland designation for the eight candidate wetlands.
- The NHEP provided partial funding to permanently protect 12.6 acres along the Little River in Lee, New Hampshire. The land was purchased by the Town of Lee on February 21, 2006. The Strafford County Conservation District will hold a conservation easement on the property.
- The NHEP provided partial funding to the Bear-Paw Regional Greenways to purchase an easement on a 134 acre parcel of land in Nottingham owned by the Comte family.
- UNH Complex Systems Research Center conducted a buffer study to characterize the current status of stream buffers throughout the watershed based on review of GIS and remote sensing data.
- The Coastal Watershed Land Protection Transaction Fund, administered by the Center for Land Conservation Assistance, was established to reimburse municipalities and conservation organizations up to 50% of the transaction costs associated with land protection projects (e.g., survey, deed research, legal fees, etc.) in the coastal watershed. Projects completed between May 2005 and February 2007 are eligible for funding. To date, 11 applications have been received and approved for funding.
- The development of the Coastal Watershed Land Conservation Plan continued over the course of the year. The NHEP attended several public meetings and project planning meetings to review and comment on work products and methods. The work is being conducted by The Nature Conservancy with support from the NH Forest Society and the Rockingham and Strafford Regional Planning Commissions. The Management Committee approved additional funding to support outreach activities related to this project throughout 2006.

### **Habitat Restoration Projects**

- The Nature Conservancy, with funding support from the NHEP and NH Coastal Program, continued the development of the Great Bay Estuarine Restoration Compendium (GBERC), which will be complete by mid-July 2006. GBERC will integrate existing data showing the historical and present day distributions for multiple species and habitats with new data and output from restoration site selection models. Restoration targets will include oyster reefs, soft-shell clam beds, salt marshes, eelgrass, shoreline buffers, and diadromous fish. This detailed estuarine restoration opportunity assessment will provide communities with high-resolution maps showing specific sites appropriate for integrated estuarine restoration projects.



- The NH Fish and Game Department coordinated with the NHDES Dam Bureau to develop work plans for repairs to the fishways on tidal dams on the Lamprey, Cocheco, Oyster, and Exeter rivers to be supported in part with NHEP funds. NHF&G also coordinated with multiple organizations and submitted permit applications in preparation for dredging in the Cocheco River. The repairs are expected to be complete by December 31, 2006.
- The Rockingham County Conservation District coordinated the efforts of the New Hampshire Coastal Program, U.S. Fish and Wildlife Service, the USDA Natural Resources Conservation Service, NHEP, the Town of Rye, New Hampshire Audubon, and several seacoast municipalities to control targeted invasive species. The effort has resulted in the removal of invasive species on property owned by the Town of New Castle and the restoration of a jack pine/rocky shore habitat. Further plans have been made to remove invasive species at Odiorne State Park and in selected areas around Great Bay.
- Through the NHEP's Local Grants Program, the Seacoast Land Trust in conjunction with the City of Portsmouth completed a management plan for Great Bog. The plan included management recommendations for two major areas: the Great Bog Conservation Easement, consisting of 196 acres; and the Great Bog Management Area, consisting of 1,805 acres (including the upper Pickering Brook Watershed) studied to understand what impacts the surrounding land had on the Bog. Suggestions for managing the area included natural community mapping, Natural Heritage Inventory updates, water quality sampling, and restoration of degraded wetlands.
- NHEP has provided partial funding for a feasibility study for dam removal or restoration on the Taylor River in Hampton/Hampton Falls. Additional funding for the project was secured from the Gulf of Maine Council. NHEP staff provided comments on the scope of work for the project as part of the River Restoration Task Force at a scoping meeting on January 31, 2006. NHEP also leveraged support from NHDES for water quality sampling in the impoundment above the dam in 2006.
- Through the NHEP's Local Grants Program, the University of New Hampshire conducted a salt marsh restoration project in Awcomin Marsh in Rye, NH. The project developed and monitored revegetation methods with the field assistance of local high school students. The students evaluated work conducted in 2005 as well as evaluate progress of a restoration site established in 2002.

### **Education/Outreach Projects and Activities**

*Local Grants Program in 2006* – An RFP was issued on July 15, 2005 and eight proposals were received by September 30, 2005. A review team of three Management Committee members and NHEP staff reviewed and ranked the proposals received. The top four ranked proposals were recommended for full funding. The proposal ranked fifth was recommended for partial funding and the remaining three proposals were not recommended for funding. The approved projects were funded at the cost of \$40,700. The Local Grants Program relates to Action Plan EDU-03, which funds activities that support Management Plan implementation. Grants were awarded to the following organizations for projects in 2006:

- Southern New Hampshire Planning Commission to conduct a buffer outreach program to specifically implement land use regulations that protect the remaining undisturbed natural shoreland buffers along the Lamprey and North Branch Rivers and other surface waters in the towns of Candia and Deerfield.
- Town of Newfields to promote Prime Wetlands Designation with the assistance of a wetlands scientist to inventory, evaluate, and prioritize the town's wetlands.
- Dr. Larry Harris at the University of New Hampshire to monitor the seasonal and long-term impact of invasive species in the Great Bay estuary. The study involves the creation of a report that synthesizes the existing information on invasives of Great Bay and identifies species that are likely future threats. Lab technicians will monitor for invasive species at four sites in the estuary using SCUBA. The sites will be examined for predators of invasive species. Finally, an invasive monitoring study conducted by Dr. Harris in the early 1980s at UNH Coastal Marine Lab will be repeated, thus providing insight on invasive species dominance and diversity patterns over time.
- Town of Seabrook to work with a consultant to create a restoration plan for the Cains Pond impoundment along Route 1. The Plan will include an inventory of existing conditions, a variety of management options, and recommendations for management. Public input will be sought on the management and restoration plan.
- Exeter River Local Advisory Committee to promote the 6th Annual Exeter River Festival with promotional materials, such as posters, banners, announcements on Community Access Television and/or newspaper advertisements.

*VIP Boat Tours* – Two tours of the Great Bay estuary aboard the UNH Gulf Challenger were offered to coastal watershed planning board and conservation commission members and guests. On September 21, 2005, the 3-hour tour included 30 participants, with nine communities represented. Presenters included Fay Rubin (UNH) discussing the upcoming Buffer Characterization study, Brian Smith (GBNERR) talking about the datasondes located in Great Bay, Phil Trowbridge speaking about the NHEP monitoring program and the 2006 State of the Estuaries report, and Jennifer Hunter speaking about the Coastal Watershed Land Conservation Plan. On October 1, 2005, the tour included 24 participants, with nine communities represented. Presenters included Ray Grizzle (UNH) discussing oyster restoration projects, Jay Odell (The Nature Conservancy) reporting the status of a project to identify restoration sites, and Rob Roseen (UNH) speaking about the Center for Stormwater Technology Evaluation and Verification. The popularity of these tours is evidenced by a waiting list this year of 92 people.

*Newspaper Column: Eye on Estuaries Series* – The NHEP Public Outreach and Education Team (POET) continued to implement Action Plan EDU-2 and attempted to publish a monthly article on natural resource issues in the seacoast area. Five articles ran in this series. At the end of 2005, the frequency of the published stories diminished. The editor of the Portsmouth Herald suggested that the series articles should be written more like news stories, rather than in an editorial style. Since the change, all articles submitted have run within two weeks of submission. The subjects of the five articles were pet waste management (written by NH Coastal Program, August), bald eagles on

Great Bay (NHEP, February), land protection (NH Coastal Program, March), illicit discharge detection and elimination (NHEP, April), and buffers to protect water quality (Great Bay National Estuarine Research Reserve, May). The April story directly addressed Action Plan WQ-6 and resulted in three reports of illicit discharges that were then addressed. An article on invasive species will be submitted in June.

*2006 State of the Estuaries Report* – Planning and design work began for the *2006 State of the Estuaries Report* that will present information on the health of the coastal watershed by highlighting data on twelve indicators from the four updated individual NHEP indicator reports (shellfish, water quality, habitats and species, and land use and development). The 2006 report will be similar to the successful question/answer format of the *2003 State of the Estuaries Report*. The 2006 report will include monitoring questions, measurable NHEP goals, data and interpretation, and focus areas to provide more information and highlight related NHEP projects. Reports will be sent to Planning Board and Conservation Commission members and will include a wall map of the coastal watershed designed to help these people utilize the report in their local decision making efforts.

*2006 State of the Estuaries Conference* – Planning began to put together the conference on October 27, 2006. Planning involved securing a venue, lining up topics and presenters, and promoting the event. The conference will highlight the *2006 State of the Estuaries Report*, plus projects conducted by the NHEP and various partnering organizations.

*Action Plan WQ-6* (promote collaboration between municipal and state officials to locate and eliminate illegal discharges into surface waters) – To address this action plan, the NHEP is working with NHDES to initiate a program to educate municipal staff on steps they should take in identifying, addressing, and reporting surface water pollution. Materials will be developed to assist municipal staff (public works, building code inspectors, health officials, etc.).

*Action Plan WQ-19* (support for stormdrain stenciling) – Progress on this action plan is being achieved this year through other organizations' efforts to conduct stenciling activities in 2006. Communities planning to complete stenciling projects in 2006 include Durham, Dover, and Exeter. Additional support was not provided by the NHEP.

*Action Plan LND-33* (promote protection of contiguous land blocks) – The Coastal Watershed Land Conservation Plan (developed by The Nature Conservancy and project partners with partial funding from the NHEP) will promote the protection of contiguous undeveloped lands and large forest habitats. Large forest ecosystems are one of the ecological priorities identified for conservation prioritization and will be shown as key areas for land protection. The Conservation Plan will include maps, prioritized conservation sites, and planning strategies (model ordinances, zoning recommendations, etc.) to be used in Master Planning and other municipal planning efforts. The Conservation Plan will be completed in June 2006 and presentations to communities on how to use the information and strategies included in the plan will be conducted this fall.

*Shellfish Outreach* – The NHEP developed a brochure entitled “Shellfish Spotlight,” that included a summary of New Hampshire clam and oyster populations, as well as articles on oyster reef reconstruction, illegal clamming, clam research in Hampton-Seabrook Harbor, oyster predators, the NHDES Shellfish Program, and the recent opening of the Bellamy River harvesting area. The large format, tri-fold brochure was mailed to all shellfish license holders who allowed additional mailings to be sent to their homes (732), as well as all state legislators, coastal license vendors, NHEP team members, and key distribution areas such as Seacoast Science Center and NH Fish and Game office. This publication addresses outreach activities of four Action Plans from the NHEP Management Plan: SHL-09B, SHL-09D, SHL-10 and SHL-13.

*Website* – Regular website updates were made by NHEP staff and the site continues to be a significant clearinghouse for NHEP program information and final project reports.

*Press Releases* – The NHEP periodically produced press releases and required grantees to create and send at least one press release that highlighted their NHEP funded project activities. From July 2005 to May 2006, 29 stories ran in either the Seacoast Newspapers or Foster’s Daily Democrat that referenced the NHEP. This suggests that press releases and other press outreach activity were effective.

*Local Events and Meetings* – The NHEP participated in events and meetings to promote project activities and Management Plan implementation. Over the last year, NHEP staff provided project information via presentations and/or displays at the Exeter River Alewife Festival, Natural Resources Outreach Coalition meetings, Seacoast Stormwater Coalition meetings, Moose Mountains Regional Greenways Trails Day, and public meetings on the Coastal Watershed Land Conservation Plan. Finally, NHEP staff assisted various programs by participating in advisory committee meetings for the NH Sea Grant Program and Great Bay National Estuarine Research Reserve Coastal Training Program, and provided input to the NH Coastal Program on its strategic planning efforts. The NHEP also regularly participated in the Great Bay Estuary Commission meetings focused on regional solutions to wastewater management and disposal options.

*Funding Credit and Logo* – The NHEP requires grantees to acknowledge NHEP funding and include the NHEP logo on any work product that will be distributed publicly. This ensures the NHEP’s name and logo is used in association with its partners’ outreach materials such as brochures, workshop announcements, reports, maps, and displays when NHEP funding is involved.

### **Monitoring Projects**

- Core monitoring projects were continued through 2006. The NHEP core monitoring projects are: water quality sampling in tidal tributaries to Great Bay, toxic contaminant testing for blue mussel tissue, oyster disease surveys, datasonde deployments in Great Bay, eelgrass mapping, and testing for nutrients and light attenuation in Great Bay.

- The NHEP also completed three special monitoring projects in 2006. The University of New Hampshire, Complex Systems Research Center, mapped impervious surfaces in the coastal watershed using imagery from the fall of 2005. These maps will be compared to the impervious surface maps that were created using imagery from 1990 and 2000. UNH also updated the conservation lands GIS layer for the coastal watershed. Data from these projects are used in the 2006 State of the Estuaries Report. The UNH Zoology Department completed work on invasive species monitoring in the estuary. The monitoring will be used to establish baseline conditions and to develop a measurable indicator for invasive species.
- Throughout the year, the NHEP Coastal Scientist continued to manage the Quality Assurance Project Plan (QAPP) development and approval process for all relevant NHEP projects. In order to keep QAPPs on schedule, the NHEP Coastal Scientist often prepared detailed QAPP templates and assisted the researchers in completing the document. Four QAPPs were completed during the year:
  - Salt Marsh Monitoring (RFA # 05331)
  - Squamscott River Dissolved Oxygen Study (RFA # 05310)
  - City of Dover Oyster Restoration Study (RFA # 05290)
  - Aquatic Nuisance Species Monitoring (RFA # 06129)

**GOAL 2: Continue implementation of the Monitoring Plan and ongoing environmental assessments**

The NHEP achieved this goal by implementing its monitoring programs and completing updates for the four environmental indicator reports in preparation for the 2006 State of the Estuaries report and conference.

The NHEP Coastal Scientist completed updates to the environmental indicator reports on shellfish, water quality, and critical habitats and species on September 30, 2005, March 31, 2006 and March 31, 2006, respectively. These reports were peer-reviewed by the NHEP Technical Advisory Committee and presented to the NHEP Management Committee on April 6, 2006. The Land Use and Development indicator report was completed on May 16, 2006. The reports are available on the NHEP website at: [www.nhep.unh.edu](http://www.nhep.unh.edu). The findings from these reports will be summarized in the 2006 State of the Estuaries report.

The NHEP Technical Advisory Committee (TAC) continued to play an integral role in the development and implementation of the Monitoring Plan. The TAC assists with analyzing and interpreting monitoring data, formulating recommendations for management strategies, evaluating and revising the Monitoring Plan and goals, and identifying data gaps and research needs. The TAC met five times between July 1, 2005 and June 30, 2006 (9/13/05, 9/30/05, 1/25/06, 3/17/06, and 6/15/06), and provided valuable input on the monitoring program work products. The NHEP TAC was designated as the forum for discussions about development of nutrient criteria for NH's estuarine waters. TAC meetings held on September 30, 2005 and June 15, 2006

addressed this issue. Materials on this subject are available at:  
<http://www.nhep.unh.edu/programs/nutrient.htm>

In September 2005, the NHEP Coastal Scientist and the TAC prepared a work plan for NHEP monitoring funds for 2006. The work plan was approved by the Management Committee on 9/29/05. The work plan included continued funding for the annual NHEP monitoring programs.

In December 2005, the NHEP Coastal Scientist produced the annual update to the *Summary of Coastal and Estuarine Monitoring Programs in New Hampshire*, which identifies various monitoring programs in the coastal watershed. The summary includes information on parameters sampled, sampling location and frequency, duration of the program, and contact information for each monitoring program. The summary is updated annually. [www.nhep.unh.edu/resources/pdf/summary\\_of\\_coastal-nhep-05.pdf](http://www.nhep.unh.edu/resources/pdf/summary_of_coastal-nhep-05.pdf)

The NHEP Coastal Scientist completed a quality assurance audit of the NHEP Monitoring Program on January 31, 2006. The goal of the audit was to verify that the systems for data collection, verification, and management were adequate to obtain data of sufficient quality for NHEP environmental indicators.

During the spring, the NHEP Coastal Scientist organized estuarine water and sediment quality data and imported them to the NHDES Environmental Measurement Database (EMD). Data from the Great Bay National Estuarine Research Reserve, UNH, and the National Coastal Assessment were all successfully imported. The EMD is the central repository for water quality data used in the 2006 State of the Estuaries Report and the 2006 Section 305(B) Surface Water Quality Reports. The EMD is accessible by the public through the internet. Moreover, data from the EMD is uploaded to EPA's national water quality data repository, STORET.

On May 23, 2006, the NHEP Coastal Scientist participated in the annual NHDES Oil Spill Response exercise. NHEP environmental data were used to evaluate the impacts of a potential spill on the natural resources of the estuary.

Throughout the year, the NHEP Coastal Scientist led a working group to develop the estuarine portion of the NH Aquatic Nuisance Species (ANS) Management Plan. Representatives from the NH Coastal Program, NH Fish and Game Department, and UNH participated in the working group. The group developed a master list of ANS that are either present in NH or might be introduced to NH. The Coastal Scientist assisted with a draft strategic plan for ANS management. The plan is expected to be complete by the end of 2006.

### **GOAL 3: Develop a long-term financing plan for the NHEP**

This goal was not met, although progress has been made by the NHEP and plans are underway to develop a funding strategy.

The NHEP delayed initiation of developing its funding strategy until the transition of the program into the University of New Hampshire was complete in mid-2005. The NHEP received special project funding from EPA to develop a long-term funding plan. A request for qualifications was issued in fall 2005, and the NHEP selected a consultant to work with the program to develop a plan. A consultant was hired in early 2006, but the contract was terminated several months later, so the NHEP re-issued its request for consultant assistance with the intent to hire another consultant beginning in the summer. NHEP staff and a subcommittee of the Management Committee will work closely with the consultant to develop the plan which is intended to be completed by the end of 2006. The first phase of the planning process will involve an assessment of the NHEP's funding needs, strengths, capacities, and competitive environment for fundraising. The second phase of the planning process will involve developing specific strategies and goals for the NHEP to pursue for long-term funding for the program.

Being part of the University of New Hampshire does present some funding opportunities not present before for the NHEP. Some corporate and foundation sponsors did not award funding to state agencies, precluding funding for the NHEP. Also, the UNH Foundation has a dedicated fundraising staff and resources. The NHEP met with the UNH Foundation to review policies and types of assistance available. The UNH Foundation can assist the NHEP with screening potential donors, training staff, and in some cases assisting with approaching potential donors.

The NHEP has received annual funding from one corporate sponsor, FPL Energy Seabrook Station, for six years in a row. The NHEP recently has developed partnerships to leverage additional funds for Management Plan implementation, including funds from the State Oil Spill Response Program, monitoring funds from Seabrook Station, and private company investment in the Piscataqua River Cooperative. Although these funds do not come directly to the NHEP, they do help support implementation of the Management Plan and the NHEP Monitoring Program and are documented as leveraged funds.

This past year, the NHEP worked with the State legislature to secure non-federal funds to support work of the NHDES Shellfish Program to implement several Management Plan Action Plans. These efforts resulted in the appropriation of \$175,000 per year to support the ongoing work of the NHDES Shellfish Program. The NHEP Management Committee reviewed various funding options and worked with legislators to develop a bill and line up bill sponsors for the 2006 session.

#### **GOAL 4: Integrate into the University setting**

NHEP staff worked with various programs and administrative offices over the last year to integrate the NHEP into to University of New Hampshire (UNH) and to accomplish programmatic activities. NHEP staff worked closely with the Office of Sponsored Research (OSR) staff to understand UNH contracting processes, forms, and requirements. Much time was spent working with the OSR to transfer three federal awards and over 25 sub-awards from the state to the University of New Hampshire.

The process took nearly six months, but is now complete. During the year, the NHEP also submitted a new federal application and an amendment through UNH and developed over a dozen new subaward agreements. NHEP staff met with the UNH Foundation to review procedures for gifts and donations received and discuss assistance available to the NHEP through the Foundation. NHEP staff also worked closely with the Business Service Center (BSC). Invoice templates were developed with input from the BSC, and the NHEP worked with the BSC to develop customized monthly financial reports to track grant status.

NHEP staff utilized services from various UNH departments to complete program activities. NHEP staff worked with UNH Printing Services to produce the NHEP's shellfish outreach publication, "Shellfish Spotlight," and worked with UNH Video Services to produce the Septic Scenes video. NHEP staff coordinated with UNH Media Services on press releases and participate in coordination meetings with marine communicators from ten UNH departments. Opportunities remain for the NHEP to collaborate with other marine programs and researchers on project activities in support of Management Plan implementation.

## **II. Progress in Implementing EPA's Priority Clean Water Act Programs**

The NHEP's Management Plan includes many Action Plans relevant to EPA's core Clean Water Act (CWA) programs. Using the Management Plan as a guide, the NHEP has undertaken many on-the-ground projects and initiatives to help implement CWA programs in New Hampshire's coastal watershed. Three CWA programs, in particular, that benefit from the NHEP's work are stormwater, monitoring, and wetlands programs. Activities undertaken by the NHEP to implement the Management Plan over the last year that address these programs are described below.

### *Stormwater*

The NHEP Management Plan includes seventeen Action Plans that directly relate to stormwater management issues and the NHEP has made progress in implementing fourteen of these Action Plans. Approximately half of the 42 communities in the NHEP area are subject to Phase II Stormwater Program requirements, so the NHEP's assistance to communities in implementing the Management Plan also assists them with Phase II compliance. The NHEP provides grant funds to municipalities to implement projects to map stormwater systems and detect and remediate illicit discharges to stormwater systems. The NH Department of Environmental Services (NHDES) manages the grant program for the NHEP and also provides technical support to municipalities in developing projects. Participating communities must provide 50% of the overall project costs. Over the last year, three communities completed projects from the 2004 grant program, and communities began five new projects as part of the 2005 grant program. The NHEP grant funds have assisted communities with implementing stormwater management plans, resulting in more aggressive schedules and more ambitious projects than would have occurred otherwise. The NHEP mapping grants have more rigorous requirements than the minimum Phase II requirements. The illicit discharge detection and elimination grants provided by the NHEP ensure that



communities identify suspected pollution sources and remove illicit connections when identified.

The NHEP also is providing training opportunities and technical assistance to help communities with other aspects of stormwater management. UNH houses the Center for Stormwater Technology Evaluation and Verification (CSTEV), a field testing facility that demonstrates the effectiveness of over a dozen stormwater management systems and best management practices. Periodically workshops are offered by CSTEV, where participants can view the facility and discuss the effectiveness of each system based on monitoring data collected for each rain event. The NHEP promoted the workshops to communities (planning boards, conservation commissions, and public works departments) and covered the costs for them to participate in the workshops. In addition, the NHEP is funding a project to develop a manual that will be used in a training program to assist municipal employees in removing illicit discharges and minimizing stormwater pollution. The training will be applicable to Stormwater Phase II program managers and public works employees, and will focus on illicit discharge detection and elimination as well as pollution prevention and good housekeeping. Finally, the NHEP Community Technical Assistance Program offers free consulting assistance to communities on a number of stormwater management topics, including development of town regulations and ordinances to limit stormwater runoff, training on stormwater management designs and calculations, development of community outreach programs on stormwater, and production of community build-out scenarios. Over the year, three communities have requested assistance with stormwater ordinances through this program.

### *Monitoring*

Each year, the NHEP funds a variety of monitoring programs. The programs provide information on water quality, shellfish resources, aquatic habitat, and land use in the coastal watershed. The NHEP monitoring programs were developed to complement existing monitoring programs of other agencies and fill critical data gaps. The major monitoring programs that were supported this past year by the NHEP are:

- Tributary monitoring – monthly monitoring of water quality at the nine major tributaries to Great Bay and Little Harbor (conducted by NHDES)
- Eelgrass mapping – annual aerial surveys and mapping of the eelgrass distribution in the Great Bay estuary (conducted by UNH)
- Gulfwatch – annual monitoring of toxic contaminants in shellfish tissue (conducted by NHDES and UNH)
- Datasonde program – support for the maintenance and deployment of datasondes with in-situ dissolved oxygen probes to monitor daily trends in dissolved oxygen at key locations in the estuary (conducted by UNH)
- Oyster disease monitoring – annual monitoring of the prevalence of oyster diseases at the major oyster beds (conducted by NH Fish and Game)
- Nutrient monitoring – testing for particulate nitrogen and phosphorus species to complement the dissolved nitrogen and phosphorus monitoring conducted by other programs (conducted by UNH)

- Land use mapping – mapping impervious surfaces and conservation lands in the coastal watershed (conducted by UNH)
- Oyster bed mapping – mapping the boundaries of the major oyster beds (conducted by UNH)

In addition to the data collection, the NHEP Monitoring Program also contains a rigorous data analysis component. Data from the NHEP programs and data from other agencies are combined to calculate a suite of environmental indicators. The indicators are used to inform the NHEP Management Committee of the status and trends of environmental conditions in the estuary. The indicators are also used for the triennial State of the Estuaries Report, which is the NHEP's main outreach vehicle on environmental progress.

The NHEP Monitoring Program supports Clean Water Act core programs in many ways. First, the water quality data are imported to the NHDES Environmental Monitoring Database and used in Section 305(b)/303(d) assessments. The 305(b)/303(d) assessment process is the heart of the Clean Water Act. Second, one of the NHEP indicators tests for trends at tidal bathing beaches. The results from this indicator assist the NHDES Beach Program with management decisions. Third, the data collection and data analysis conducted by the NHEP are used by the NHDES Oil Spill Response Program for contingency planning and, in the event of a spill, establishing baseline conditions. Fourth, the NHEP data have been used in two TMDLs (Hampton Harbor TMDL, Little Harbor TMDL). A third estuarine TMDL (the Squamscott River TMDL) is planned. And, fifth, the NHEP has taken the lead role for establishing nutrient criteria for NH's estuaries. The recommendations from the NHEP will lead to the development of new water quality standards for the state's estuaries.

### *Wetlands*

Twenty-three Action Plans from the NHEP Management Plan directly address wetlands and/or buffer protections at the community level. The NHEP has undertaken many activities to address these Action Plans and facilitated progress on 18 of these Action Plans. In New Hampshire, communities can provide greater protection to important wetlands by designating them as Prime Wetlands. The Prime Wetlands Designation process was developed by the State, and it includes a comprehensive inventory and functional evaluation of towns' wetlands, public input, approval at town meeting, and approval by the state. Over the last year, the NHEP has supported ongoing projects related to prime wetlands designation in four communities (Hampton, Hampton Falls, Portsmouth, and Newfields). For each, the NHEP provided funding for certified wetlands scientists to inventory towns' wetlands and evaluate them for 14 different wetland functions.

The NHEP provides technical assistance to communities on buffer protection projects, including wetland buffers. The NHEP Community Technical Assistance Project offers free consulting assistance to communities on a number of wetlands buffers projects, including development or amendment of buffer protection ordinances or subdivision and site plan regulations to improve buffer protections, prime wetlands designation, and

development of town outreach programs on buffer maintenance and protection. This past year, the NHEP also initiated a buffer outreach program to provide assistance to communities that will include a customized presentation for the town, a facilitated discussion to develop town priorities for improvements, and fact sheets on successful approaches used by other communities.

### III. Summary of Meetings, Milestones, and Events

July 2005-June 2006	<ul style="list-style-type: none"> <li>• Estuaries Update emailed monthly</li> </ul>
July 2005	<ul style="list-style-type: none"> <li>• Hired NHEP Project Coordinator, Jodi Castallo</li> <li>• Year 10 Work Plan and application submitted to EPA</li> <li>• Issued Local Grants RFP</li> <li>• Community Technical Assistance Program Requests for Applications issued</li> <li>• Septic System Outreach Campaign begins, contest announced</li> </ul>
August 2005	<ul style="list-style-type: none"> <li>• Annual GPRA reports sent to EPA</li> </ul>
September 2005	<ul style="list-style-type: none"> <li>• Management Committee Meeting</li> <li>• Technical Advisory Committee Meeting</li> <li>• Public Outreach and Education Team Meeting</li> <li>• First meeting of Nutrient Criteria Workgroup</li> <li>• First 2005 V.I.P. Tour of the Great Bay Estuary</li> <li>• Nine Local Grants Proposals Received</li> <li>• NHEP Shellfish Indicator Report complete</li> </ul>
October 2005	<ul style="list-style-type: none"> <li>• Special Management Committee Meeting on shellfish funding bill</li> <li>• Second 2005 V.I.P. Tour of the Great Bay Estuary</li> <li>• Septic System Workshop for Real Estate Professionals</li> <li>• National Estuary Program Meeting (Rhode Island)</li> <li>• Gulfwatch fieldwork and lab work initiated</li> <li>• Five projects selected for 2006 Local Grants</li> </ul>
November 2005	<ul style="list-style-type: none"> <li>• Land Use/Habitat Protection Team Meeting</li> <li>• NHEP Shellfish and Living Resources Team Meeting</li> <li>• Gulfwatch fieldwork and lab work completed</li> </ul>
December 2005	<ul style="list-style-type: none"> <li>• Management Committee Meeting</li> <li>• Shellfish Spotlight Published</li> </ul>
January 2006	<ul style="list-style-type: none"> <li>• Technical Advisory Committee Meeting</li> <li>• Water Quality Team Meeting</li> <li>• House Committee Hearing for Shellfish Program House Bill 1747</li> </ul>
February 2006	<ul style="list-style-type: none"> <li>• NROC Program Evaluation and Retreat</li> <li>• Implementation Review Report submitted</li> <li>• Septic Scenes video released by the NHEP</li> </ul>
March 2006	<ul style="list-style-type: none"> <li>• National Estuary Program Annual Meeting</li> <li>• Technical Advisory Committee Meeting</li> <li>• Public Outreach and Education Team Meeting</li> <li>• Land Use/Habitat Protection Team Meeting</li> <li>• Senate Committee Hearing on House Bill 1747</li> <li>• NHEP Water Quality Indicator Report complete</li> <li>• NHEP Critical Habitats and Species Indicator Report complete</li> </ul>
April 2006	<ul style="list-style-type: none"> <li>• Management Committee Meeting</li> <li>• Water Quality Team Meeting</li> </ul>
May 2006	<ul style="list-style-type: none"> <li>• NHEP Land Use &amp; Development Indicator Report complete</li> <li>• Shellfish and Living Resources Team Meeting</li> </ul>
June 2006	<ul style="list-style-type: none"> <li>• HB 1747 enacted</li> <li>• Triennial Implementation Review – site visit by EPA</li> <li>• Management Committee Meeting (Year 11 Work Plan approved)</li> <li>• Second Nutrient Criteria Workgroup Meeting</li> <li>• Year 11 Work Plan and application submitted to EPA</li> </ul>

## **IV. List of Ongoing Projects**

Information on ongoing implementation projects is included below. Implementation projects are funded by the currently open EPA grants, which include the Year 6, Year 7, Year 8, Year 9, and Year 10 grants. The following table presents information for all projects currently ongoing (open as of 6/30/2006) and includes:

**Work plan identification number**

**Project activity**

**Contractor/Organization**

**Relevant Action Plan(s)**

**Project start and end dates**

**NHEP funds committed to the project**

**Matching funds committed to the project**

**Other funds committed to the project (e.g., other federal funds)**

Specific information on the status of each project is provided to EPA quarterly, via transmission of the NHEP's project tracking database to EPA.

## Ongoing Projects, as of 6/30/06

Work Plan ID	Project Title/Activity	Contractor/Organization	Relevant Action Plan(s)	Start Date	End Date	NHEP Funds Committed	Match Committed
02-E-12	2006 State of the Estuaries Report	NHEP Staff/vendors TBD	EDU-01, Admin	1/1/2006	11/1/2006	\$8,000.00	\$0.00
02-E-13	2006 Conference Planning and Venue	NHEP Staff/vendors TBD	EDU-01, Admin	6/1/2005	11/30/2006	\$10,000.00	\$0.00
03-C-9.1	Portsmouth Prime Wetlands	West Environmental, Inc.	LND-25	10/1/2005	9/30/2006	\$7,250.00	\$7,000.00
04-A-7	Promote collaboration of state and local officials to locate and eliminate illegal discharges into surface waters	NHEP Staff	WQ-06	1/1/2006	12/31/2006	\$0.00	\$0.00
04-C-12	Develop a model local planning approach to encourage the identification and maintenance of contiguous habitat blocks	NHEP Staff	LND-33	1/1/2006	12/31/2006	\$0.00	\$0.00
04-C-7	Wetlands Protection in Little River Park - Lee, NH	Town of Lee	LND-15,LND-25,LND-25D	12/15/2004	12/31/2006	\$27,500.00	\$116,500.00
04-E-4	Implementation of Strategic Communication Plan and POET recommendations in 2006	NHEP Staff	EDU-01	7/1/2005	12/31/2006	\$10,000.00	\$0.00
04-E-7	Support and expand storm drain stenciling programs	NHEP Staff	WQ-19	1/1/2006	12/31/2006	\$0.00	\$0.00
04-E-8	Highlight estuarine issues in public radio or television to produce an estuarine piece	NHEP - NHPR/TV	EDU-01	1/1/2006	12/31/2006	\$0.00	\$0.00
05-A-1	Stormwater mapping, monitoring, and illicit connection grants	NH Department of Environmental Services	WQ-04A,WQ-04B,WQ-04C	1/1/2005	12/31/2006	\$60,000.00	\$60,000.00
05-A-3	Low Impact Storm Water Management Projects at UNH	UNH: Steve Jones	WQ-08,WQ-18	3/1/2005	9/30/2006	\$34,680.00	\$37,238.00
05-B-2	2005 Gulfwatch - oyster, clam, and mussel testing	NHDES	Monitoring,SHL-06	1/1/2005	12/31/2006	\$10,500.00	\$0.00
05-C-2	NROC Community Project in 2006	Community Project TBD	LND-05	1/1/2006	12/31/2006	\$2,659.20	\$2,659.20
05-C-3	Coastal Watershed Land Conservation Transaction Grants	Forest Society/CLCA	LND-15,LND-36	4/15/2005	3/31/2007	\$57,200.00	\$49,150.00
05-C-4	Community Technical Assistance Program	Projects/contractors TBD	Various – depends on selected projects	9/1/2005	3/31/2007	\$34,175.00	\$10,000.00
05-C-4.3	Town of Kingston Technical Assistance Project	Stone Environmental	LND-22,LND-25,LND-25C	5/15/2006	9/1/2006	\$9,105	\$0.00
05-C-6	Buffer Outreach Program 2006	NHEP Staff	LND-14,LND-20	7/1/2005	12/31/2006	\$15,000.00	\$15,000.00
05-C-7	Buffer Protection in Candia & Deerfield	Southern NH Planning Commission	LND-14,LND-20	1/1/2006	12/31/2006	\$7,700.00	\$7,700.00

05-C-8	Municipal Designation of Prime Wetlands	Town of Newfields	LND-25	1/1/2006	12/31/2006	\$10,000.00	\$13,963.25
05-C-9	Wakefield NROC Project	Town of Wakefield	LND-05	5/1/2006	12/31/2006	\$4,840.80	\$5879.25
05-D-2	Monitoring the Seasonal and Long-Term Impacts of Invasive Species in Great Bay	UNH: Larry Harris	Monitoring, RST-07	1/1/2006	12/31/2006	\$10,000.00	\$10,000.00
05-D-3	Coastal Dam Fish Passage Projects: Lamprey, Oyster, Cocheco, & Exeter Rivers	NH Fish & Game	RST-04	10/1/2005	12/31/2006	\$25,000.00	\$25,000.00
05-D-4	Taylor River Dam Restoration/Removal Feasibility Study	NH Department of Transportation	RST-04	1/1/2006	6/30/2007	\$38,000.00	\$38,000.00
05-D-5	Support for the development of a Statewide Aquatic Nuisance Species Plan	NHEP Staff	RST-07	1/1/2005	12/31/2006	\$0.00	\$0.00
05-D-6	Cains Pond/Cains Brook Restoration Plan	Town of Seabrook	RST-04	1/1/2006	12/31/2006	\$10,000.00	\$10,000.00
05-M-3.1	2006 Monitoring Program (Eelgrass, GulfWatch, Datasondes, PAR)	UNH: Jon Pennock	Monitoring	1/1/2006	3/31/2007	\$33,000.00	\$33,000.00
05-M-4.1	2006 Oyster Disease Testing	NH Fish & Game	Monitoring, SHL-07	10/1/2005	6/30/2007	\$2,250.00	\$2,250.00
05-M-4.2	2006 Oyster Disease Testing: Supplemental Tests	Rutgers University	Monitoring, SHL-07	06/1/2006	3/31/2007	\$3,400.00	\$3,400.00
05-M-6	2006 Gulfwatch Program	NHDES	Monitoring	1/1/2006	6/30/2007	\$7,000.00	\$0.00
05-M-7	2006 Monthly Tributary Monitoring	NHDES	Monitoring	1/1/2006	3/31/2007	\$13,600.00	\$46,000.00
05-M-8	2006 National Coastal Assessment	NHDES	Monitoring	1/1/2006	6/30/2007	\$400.00	\$0.00
05-Staff-2	2006 Coastal Scientist	NHDES	Monitoring	1/1/2006	12/31/2006	\$62,000.00	\$0.00
06-A-1	2006 Community Grant Program – illicit discharge elimination and storm sewer mapping	NHDES	WQ-04A, WQ-04B, WQ-04C	1/1/2006	12/31/2007	\$37,500.00	\$37,500.00
06-A-2	Pleasant Point Sewer Extension	City of Portsmouth	WQ-07	11/1/2005	12/31/2007	\$30,000.00	\$300,000.00
06-Admin-2	Finance Plan	Consultant TBD	Admin	2/1/2006	12/31/2006	\$8,333.00	\$0.00
06-B-1	DES Shellfish Program 2006	NHDES	SHL-01, SHL-05	1/1/2006	1/31/2007	\$14,040.00	\$100,000.00
06-B-2	Water quality & shellfish meat testing in 2006 to support the DES Shellfish Program	NH Department of Health and Human Services	SHL-01, SHL-05, SHL-06	9/1/2005	1/15/2007	\$38,960.00	\$36,722.00
06-B-3	Citizen involvement in shellfish management	Shellfish Team/NHEP Staff	SHL-14	10/1/2005	6/30/2008	\$0.00	\$0.00
06-B-5	NHEP support for DES Shellfish Program funding	NHEP Staff & Management Committee	SHL-04	10/1/2005	12/31/2006	\$0.00	\$0.00

06-C-1	NROC Implementation 2006	UNH Cooperative Extension	LND-05	1/1/2006	12/31/2006	\$15,000.00	\$15,000.00
06-C-2	Community Technical Assistance Program	Projects/consultants TBD	Various – depends on selected projects	10/1/2005	6/30/2008	\$35,000.00	\$0.00
06-D-1	Cooperative Project to Control Invasive Plants in the New Hampshire Seacoast Region	Rockingham County Conservation District	RST-03,RST-04	10/1/2005	12/31/2006	\$5,300.00	\$23,000.00
06-E-1	2006 Monthly Newspaper Column	NHEP staff and POET	EDU-01,EDU-02	1/1/2006	12/31/2006	\$0.00	\$0.00
06-M-2	Seabrook Station Clam Monitoring in 2006	Seabrook Station	Monitoring	1/1/2006	12/31/2006	\$0.00	\$63,000.00
06-Match-2	Management Committee In-kind 2006	NHEP Management Committee	Monitoring	1/1/2006	12/31/2006	\$0.00	\$5,000.00
06-Match-3	Company contributions to PRC 2006	Piscataqua River Cooperative	WQ-12A,WQ-12B	1/1/2006	12/31/2006	\$0.00	\$140,000.00
SS-B-1	Clam Enhancement Demonstration/Research in Hampton Seabrook Harbor	University Maine Machias	RST-01	1/1/2006	12/31/2006	\$18,700.00	\$18,700.00



## V. Travel Report

Travel conducted by the NHEP over the last year included travel of three NHEP staff to the Fall NEP/ANEP meeting in Rhode Island, travel of NHEP staff to the Spring NEP/ANEP meeting, and travel to a workshop in Wells, Maine. Remaining travel funds for 2006 will be used to support additional travel this year to the Fall NEP/ANEP meeting in San Francisco (estimated costs of \$3,000), the national NEMO conference in Connecticut (estimated cost of \$500), and the Restore America's Estuaries Conference in New Orleans (estimated cost of \$1,600).

<b>Event</b>	<b>Location</b>	<b>Date</b>	<b>Traveler(s)</b>	<b>Cost</b>
2005 NEP/ANEP Fall Meeting	Newport, RI	October 2005	Jennifer Hunter Jodi Castallo Phil Trowbridge	\$2,680
Wells NERR Conflict Resolution Workshop	Wells, ME	January 2006	Jodi Castallo	\$100
2006 NEP/ANEP Spring Meeting	Washington, DC	March 2006	Jennifer Hunter	\$1,775
Travel planned for rest of 2006 (NEP meeting, NEMO meeting, and RAE conference)	Various	Fall 2006	Various	\$5,100
<b>Total Cost</b>				<b>\$9,655</b>

## **SECTION II: YEAR ELEVEN WORK PLAN**

### **I. Goals**

The following is a list of goals for the NHEP in 2007. The Year 11 Work Plan and its activities are designed to accomplish the following goals:

#### **1. Continue implementation of the NH Estuaries Project Management Plan**

The NHEP will fund and manage projects and directly undertake activities to implement the Management Plan in 2007.

#### **2. Continue implementation of the NHEP Monitoring Plan and ongoing environmental assessments**

The NHEP will manage projects and undertake activities in support of its monitoring program, including ongoing annual monitoring projects as well as special monitoring projects.

#### **3. Conduct targeted outreach on the 2006 State of the Estuaries Report**

The NHEP will develop specific outreach strategies to highlight indicators from the 2006 report and provide guidance on how the information can be used. Customized presentations will be developed and conducted by the NHEP for municipal boards, watershed groups, and other interested parties.

#### **4. Prepare 2007 Progress Report**

The NHEP will prepare an updated progress report in 2007 to report on Management Plan implementation. The progress report will assess relative completion of all action plans from the Management Plan.

#### **5. Review options for incorporating the Maine portion of watershed into the NHEP focus area**

In 2007 the NHEP will initiate a review of opportunities, capacities, and implications involved with expanding the NHEP focus area to the portion of the coastal watershed that is in the state of Maine (portions of 10 Maine communities).

## **II. Proposed Implementation Activities and Priorities**

Working with input from the Project Teams, Management Committee, and staff, the NHEP Director developed the Year Eleven Work Plan, which describes activities and projects to implement the Management Plan and monitoring program. Projects and activities described below will be initiated in 2007. All projects funded by the Year Eleven grant will be completed by June 30, 2009.

The Work Plan is divided into sections to parallel priorities of the Management Plan: Water Quality, Shellfish Resources, Land Use/Habitat Protection, Habitat Restoration, and Outreach/Education. Monitoring activities and administrative activities that support Management Plan implementation are also included. For each project or activity an alphanumeric code is generated for tracking in the NHEP database. The first two digits refer to the year of funding (07 is the Year 11 grant). The letter designates the Management Plan priority area (A = water quality, B = shellfish resources, C = land use/habitat protection, D = habitat restoration, E = education/outreach, M = monitoring, and A = administrative). Finally, the last digit tracks individual projects for a specific funding year and priority area. For example, 07-A-1 is the first water quality project under the Year 11 grant and 07-C-3 would be the third land use/habitat protection project developed under the Year 11 grant.

### **A. WATER QUALITY ACTIONS**

The Water Quality Team met to review action plans and make recommendations for priorities on which to focus in 2007 at its April 13, 2006 meeting. The team identified continuation of water quality monitoring activities associated with the National Coastal Assessment (NCA) as a priority (funding for the NCA was recently scaled back by US EPA to support estuarine assessments once every five years rather than annually). The NHEP Coastal Scientist and Technical Advisory Committee (TAC) will undertake a review of NCA monitoring to determine which long-term trend sites are most important for ongoing assessments for NHEP indicators. If deemed a monitoring priority by the TAC, up to \$10,000 of monitoring funds will be available to support monitoring at certain NCA sites in 2007. Additional funds will be needed to support NCA assessments at long-term trend sites beyond 2007.

A high priority identified by the team and included in the Year 11 work plan is a project to conduct an assessment and make recommendations for improved erosion and sedimentation control programs. Other water quality action plans identified by the team as priorities for 2007 will be targeted as priorities for funding through the 2007 Local Grants Program (WQ-5 related to the study of optical brighteners to identify pollution sources; and WQ-4A, 4B, and 4C related to municipal storm sewer mapping and illicit discharge detection and elimination projects).

#### **07-A-1: Improve Erosion and Sedimentation Control Programs**

The NHEP will issue an RFP to award up to \$40,000 to a contractor to evaluate erosion and sedimentation (E&S) control programs and make recommendations for their improvement. The study will evaluate how well actual practices at construction sites

match plans and how well best management practices (BMPs) are working; town capacity to conduct inspections of construction sites for E&S controls; town regulations in place for E&S controls; and enforcement actions. The evaluation also will review how Phase II stormwater management plans relate and include a review of programs implemented in other states (including contractor certification programs). Based on the assessments, recommendations will be developed for improving site plan review and enforcement and for programs that could be implemented at the state level to improve E&S controls.

**Action Plans Implemented:**

- Action Plan WQ-9: Ensure that water quality and quantity impacts from new development or redevelopment are minimized to the maximum extent practical at the planning board stage of development
  - Action Plan WQ-10: Research the use and effectiveness of the Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire
- 

**07-A-2: Coordination with the Piscataqua River Cooperative**

The NHEP will continue efforts collaborate with the Piscataqua River Cooperative (PRC) to support its efforts to prevent, respond to, and minimize impacts from oil and hazardous waste spills. The PRC is supported through contributions from energy companies and with funds from the NHDES Oil Spill Response Program.

**Action Plan Implemented:**

Action Plan WQ-12A: Acknowledge and support the oil spill prevention and response activities of the Piscataqua River Cooperative

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**B. SHELLFISH/LIVING RESOURCES & HABITAT RESTORATION ACTIONS**

The Shellfish and Living Resources Team met on November 18, 2005. The Team recommended using the available funding for 2007 (\$60,000) toward habitat restoration projects selected through a request for proposals. The team worked on the details of the RFP at its May 2006 meeting. The NH Coastal Program will also provide funding through this RFP.

**07-D-1: Funding for Restoration Projects**

The NHEP will provide up to \$60,000 from the Year 11 grant to fund projects selected through a competitive request for proposals (RFP) to be issued in 2006. The RFP will be used to implement habitat restoration projects, including those identified in the Great Bay Estuary Restoration Compendium. The Compendium will be complete by June 30, 2006 and will identify integrated restoration opportunities for shellfish resources, salt marsh, eelgrass, fish passage and buffers.

**Action Plans Implemented (depending on projects submitted and selected):**

- Action Plan SHL-8: Develop and implement a plan for shellfish resource enhancement and habitat restoration activities to achieve a sustainable resource contributing to a healthy environment
  - Action Plan RST-2: Using the Coastal Method and other techniques, identify and restore tidal wetlands for aspects other than tidal restrictions
  - Action Plan RST-3: Continue to restore the tidal wetlands listed in the NRCS report, "Method for the Evaluation and Inventory of Vegetated Tidal Marshes in New Hampshire"
  - Action Plan RST-4: Identify and implement habitat restoration projects in other important non-tidal habitat areas, such as uplands and freshwater wetlands
- 

### **07-B-1: NHDES Shellfish Program**

The NH Legislature and Governor recently approved a bill to appropriate annual funding in the amount of \$175,000 to the NHDES Shellfish Program. The funding will support the continuation of monitoring, shoreline surveys, classification studies, and red tide testing in 2007 in support of many action plans from the Management Plan.

#### **Action Plans Implemented:**

- Action Plan SHL-1: Implement procedures in the National Shellfish Sanitation Program guidance to obtain certification by the FDA for a recreational and commercial shellfish program
  - Action Plan SHL-4: Enhance the amount and reliability of funding for strategies and actions to maintain a comprehensive shellfish program
  - Action Plan SHL-5: Collect and monitor water quality samples to identify sources and reduce or eliminate contaminants
  - Action Plan SHL-6: Periodically collect and monitor shellfish tissue samples as appropriate for toxins and biotoxins
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## **C. LAND USE/HABITAT PROTECTION ACTIONS**

Land use/habitat protection projects to be supported in 2007 were identified by the Land Use Team at its March 2006 meeting. The Land Use Team recommended allocating resources to existing programs it deemed successful and important to continue: the Natural Resources Outreach Coalition, Land Transaction Grants, and Community Technical Assistance Program. In addition, NHEP staff will continue outreach and technical assistance activities to communities in support of Management Plan implementation. The following activities will be completed in 2007 with available funding and through staff activities.

### **07-C-1: NROC Support/Program Implementation**

NHEP staff will participate in the Natural Resources Outreach Coalition, by participating in quarterly coordination meetings, serving on ad-hoc committees, serving on teams to prepare and deliver programs to communities and facilitate follow up, helping to develop work plans, and managing grants with participating communities. NHEP staff will work with two communities in 2007, or with more as needed.

**Action Plan Implemented:**

Action Plan LND-5: Support the Natural Resource Outreach Coalition (NROC) municipal decision-maker land-use planning outreach method

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**07-C-2: NROC Community Grants**

The NHEP will provide \$5,000 for matching grants to participating communities in 2007. These funds will assist the communities with implementing priorities identified in the work plan that has been developed through the NROC program. The NROC team reviews community projects. Additional NROC community funding will be available from the NH Coastal Program.

**Action Plan Implemented:**

Action Plan LND-5: Support the Natural Resource Outreach Coalition (NROC) municipal decision-maker land-use planning outreach method

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**07-C-3: Buffer Protection Outreach and Assistance**

NHEP staff will continue to provide information and assistance to communities that are interested in learning about the importance of buffers and steps they can take to improve buffer protections. The NHEP will deliver a presentation and conduct follow as needed. Outreach and assistance will be targeted to municipal boards, although watershed organizations and other interested groups can request presentations as well. Information from recently-completed buffer studies and buffer protection outreach initiatives will be integrated into the NHEP's activities.

**Action Plans Implemented:**

- Action Plan LND-14: Develop and implement an outreach program to encourage and assist communities in developing and adopting land use regulations to protect undisturbed shoreland buffers
  - Action Plan LND-20: Develop and implement a wetlands buffer outreach program for planning boards
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**07-C-4: Community Technical Assistance Program**

The NHEP will provide up to \$20,000 for a continuation of the Community Technical Assistance Program in 2007. The program provides assistance to community conservation commissions and planning boards on various regulatory and nonregulatory approaches to natural resource protection, including land conservation planning, buffer protection, and stormwater management. Communities apply to the NHEP for assistance with a specific topic; communities are paired with "technical assistance providers" selected by the NHEP; project work plans are developed; and the NHEP oversees the consultants' work with communities.

**Action Plans Implemented (depending on community projects developed):**

- Action Plans LND-15, LND-29, and LND-36 (land conservation planning)
  - Action Plans LND-1, LND-2, LND-6E, WQ-9, & WQ-18 (storm water management/low impact development assistance)
  - Action Plan LND14, LND-20, & LND-25 (buffers and wetlands protections)
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#### **07-C-5: Land Protection Transaction Fund**

The NHEP will provide \$15,000 to the Center for Land Conservation Assistance for continuation of the Coastal Watershed Land Protection Transaction Fund. The transaction fund reimburses up to 50% of the transaction costs associated with permanently protecting important lands from development. Eligible transaction costs include costs of surveys, attorney fees, consultant fees, and certain appraisal costs. Eligible organizations are nonprofit conservation organizations and units of government. The NHEP provided \$57,200 for this fund from June 2005 to March 2007, and the fund is anticipated to be fully subscribed.

#### **Action Plans Implemented:**

- Action Plan LND-36: Encourage conservation easements
  - Action Plan LND-15: Support land conservation efforts in shoreland areas
- In addition, this project will directly help the NHEP meet its goal of permanently protecting at least 15% of lands in the coastal watershed from development by 2010.
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## **D. HABITAT RESTORATION ACTIONS (See Section B above)**

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### **E. EDUCATION/OUTREACH ACTIONS**

Activities described below include those related to specific Management Plan Action Plans, as well as those described in the NHEP Strategic Communication Plan. Outreach projects were recommended by the Public Outreach and Education Team (POET) as priorities for implementation in 2007. The NHEP Strategic Communication Plan outlined the completion of outreach related action plans by 2007. To meet that goal, the POET identified which Action Plans to undertake in 2007 at its March 2006 meeting. Since many of these Action Plans are related to other sections of the Management Plan, NHEP staff and POET will coordinate with the other NHEP project teams to implement activities. Four thousand dollars (\$4,000) is allocated to support outreach projects in 2007 in addition to the funding for the Local Grants Program.

#### **07-E-1: Local Grants Program in 2007**

The NHEP will provide \$45,000 in matching funds for competitively selected projects in response to a request for proposals. The NHEP Management Committee places strong emphasis on empowering community partners. To this end, the NHEP will continue its Local Grants Program through 2007. Projects will be solicited through a Request for Proposals issued by the NHEP in summer of 2006. Applicants' projects can address any action plan from the NHEP Management Plan; however certain action plans will be

highlighted as priorities for funding based on recommendations from project teams and NHEP staff.

**Action Plan Implemented:**

Action Plan EDU-3: Establish and fund a Technical Assistance Grant Program to promote and fund projects that support the NHEP Management Plan

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**07-E-2: 2007 Monthly Newspaper Column**

The NHEP Public Outreach and Education Team will continue to work with the Seacoast Newspapers group to publish a monthly column in the Portsmouth Herald titled "Eye on Our Estuaries," which highlights local estuarine issues. Topics relevant to Management Plan priorities will be addressed.

**Action Plans Implemented:**

- Action Plan EDU-1: Utilize the media to enhance educational efforts
  - Action Plan EDU-2: Work with the Seacoast Newspapers to establish a monthly newspaper column devoted to coastal natural resource issues
- 

**07-E-3: General Outreach/Communications Support in 2007**

The NHEP will conduct general outreach activities (press releases, website updates, Estuaries Update email newsletter, participate in outreach events, etc.) in 2007. In addition, the NHEP will continue to develop and maintain an email list of coastal decision-makers so that information can best reach this target audience. These NHEP activities support outreach and communication objectives and continue progress in implementing the Strategic Communication Plan and outreach components of the Management Plan.

**Action Plans Implemented:**

These activities are intended to support general outreach objectives and increase awareness of the NHEP and its products and resources.

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**07-E-4: V.I.P. Boat Tours**

The NHEP will organize and conduct two boat tours of the Great Bay estuary in 2007 geared for coastal watershed planning board members and conservation commissions, as well as other town board members. This will be the fourth year that the NHEP has organized these well-attended events for participants. Approximately 75 people are anticipated to participate. The boat tours are an opportunity to introduce community decision makers to the NHEP and its programs, help people connect to the area's estuarine resources, highlight information and projects of particular relevance, and encourage networking between communities.

**Action Plan Implemented:**

Action Plan WQ-20: Conduct an Estuarine Field Day for municipal officials



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**07-E-5: Prime Wetlands Promotional Campaign**

The NHEP will develop and implement outreach activities targeted at municipal boards to promote adoption of prime wetlands designation for high quality wetlands. The NHEP also will assist interested communities develop materials and presentations for public meetings intended to increase awareness of the value of prime wetlands designation within the town.

**Action Plans Implemented:**

- Action Plan LND-25: Encourage municipal designation of Prime Wetlands and 100-foot buffers or equivalent protection
  - Action Plan LND-25A: Create a Prime Wetlands display
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**07-E-6: Conduct outreach on 2005 impervious surface data and other data from the 2006 State of the Estuaries Report**

The NHEP will conduct outreach directed to municipal officials on data from the 2006 State of the Estuaries Report, including the 2005 impervious surface data. A presentation will be developed by the NHEP and given to interested community boards as well as other interested groups (civic groups, watershed organizations, etc.). Impervious surface information and maps will be developed by the NHEP and distributed to communities.

**Action Plans Implemented:**

- Action Plan LND-1: Prepare a report on current and future levels of imperviousness for the subwatersheds of the NH coastal watershed
  - Action Plan LND-2: Implement steps to limit impervious cover and protect streams at the municipal level
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**07-E-7: Assist volunteer organizations**

The NHEP will assist two volunteer organizations in 2007 with activities to improve their overall capacities for involving volunteers in community based monitoring and stewardship programs. The NHEP will offer assistance in analyzing data, communicating findings, or developing presentations or other materials to assist two organizations better meet their natural resource protection objectives.

**Action Plan Implemented:**

Action Plan EDU-5: Support volunteer organizations active in water quality, habitat, or other estuarine watershed natural resource issues.

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**F. MONITORING ACTIVITIES**

The NHEP Coastal Scientist oversees the development and implementation of NHEP's monitoring activities. Monitoring activities involve implementation of the Monitoring Plan, which outlines the data and analytical methods for indicators that assess

environmental objectives. Monitoring activities include annual programs and special projects for which data are collected less frequently. The NHEP commits funds to implement its annual monitoring program, and special monitoring projects are pursued as needed and as funds are available. Quality Assurance Project Plans (QAPPs) are developed as necessary for monitoring projects.

The NHEP reserved \$60,000 from the Year 10 grant for its annual monitoring program in 2007. Specific projects for the 2007 monitoring program will be reviewed by the NHEP Technical Advisory Committee and presented to the NHEP Management Committee in the fall of 2006. Organizations receiving NHEP funds to conduct monitoring projects will provide matching funds. In addition, FPL Energy Seabrook Station conducts monitoring activities in Hampton-Seabrook Harbor that provide data used by the NHEP for its indicator reports and are counted as matching funds for the program.

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## **G. ADMINISTRATIVE/PROGRAM SUPPORT ACTIVITIES & INITIATIVES**

The following activities will be initiated in 2007 to support overall Management Plan implementation and NHEP operations.

### **07-Admin-1: 2007 Progress Report**

The NHEP will prepare a report that identifies progress made in implementing the Management Plan. The report will be reviewed by project teams and the Management Committee. The report will help the NHEP and others assess Action Plan implementation progress, will be useful in identifying priorities, and will provide information for the 2010 Management Plan update.

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### **07-Admin-2: Subcommittee to Review Expanding NHEP Study Area to Maine**

The NHEP will initiate a subcommittee to review the implications and make recommendations on expanding the NHEP study area to the Maine portion of the watershed (including portions of 10 Maine communities). The subcommittee will be comprised of NHEP staff and Management Committee members.

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### **07-Admin-3: Fund Development Plan Implementation**

Based on findings and recommendations from the Fund Development Plan to be completed in 2006, the NHEP will undertake activities in 2007 aimed at bringing in additional funds for Management Plan implementation.

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### **07-Admin-4: NHEP Monitoring Plan Update**

The NHEP will complete an update to the Monitoring Plan in 2007 (last revised June 2004). The update will capture recent changes recommended to the NHEP's monitoring program and will ensure that Monitoring Plan is more consistent with the recently completed indicator reports.

### III. Program Administration

The University of New Hampshire administers the New Hampshire Estuaries Project. The Year 11 Work Plan includes costs for administration of the NHEP in 2007, including staff salary, benefits, supplies, travel, and indirect costs.

#### Staff Expenses in 2007

There are three full time NHEP staff located at UNH (NHEP Director and two Project Coordinators). Benefits for UNH staff are calculated as 42.3% of the salary. The NHEP also will hire an intern/work study student for 2007 to assist with special projects. There are no benefits calculated for the intern. Costs for staff are identified below:

- UNH NHEP staff, including salary and benefits for ~95% of the year for 3 positions: **\$217,183** (remaining funds budgeted for salary and benefits left from the Year 10 grant will cover ~5% of the costs in 2007)
- Intern at UNH (work study program): **\$900**

The NHEP also funds its Coastal Scientist position at the NH Department of Environmental Services, with the NHEP covering ~75% of all costs associated with the position and NHDES covering ~25% of the costs. NHEP funding for the Coastal Scientist position in 2007 (**\$62,000**) is covered by funds reserved from the Year 10 grant award.

Specific roles of NHEP staff and others in administering the program are:

NHEP Director (UNH position): The Director is responsible for the overall administration of the program to carry out activities and priorities approved by the NHEP Management Committee in the annual work plan; meeting federal requirements of the program, including requisite program reporting; supervising program staff and contractors to implement work plans, projects, communications activities and technical assistance programs; coordinating with stakeholder and partner groups to set priorities and schedules for program implementation; developing annual work plans and budgets; securing and documenting non-federal matching funds for the program; overseeing the award and supervision of environmental research and implementation projects to ensure acquisition of environmental data and achievement of project objectives; and representing the NHEP in local, regional, and national settings.

NHEP Project/Outreach Coordinator (UNH position): The Project/Outreach Coordinator implements education and outreach actions from the Management Plan, implements the NHEP's communication plan, oversees the annual Local Grants Program, coordinates selection of projects through competitive project solicitations, develops project work scopes, performs project tracking and reporting activities, chairs the Public Outreach and Education Team, provides support to other NHEP project teams, and coordinates production of publications and program website.

NHEP Project Coordinator (UNH position): The Project Coordinator implements actions from the Management Plan (focusing primarily on land use and habitat protection), develops and implements community technical assistance programs, oversees grant

programs, coordinates selection of projects through competitive project solicitations, develops project work scopes, performs project tracking and reporting activities, provides support to the NHEP Land Use and Habitat Protection Team and other project teams, and assists with outreach activities for the program.

NHEP Coastal Scientist (NH Department of Environmental Services position): The Coastal Scientist is responsible for overseeing and implementing the NHEP Monitoring Plan, including collection, analysis, and reporting of environmental indicator data, developing and managing projects related to the Monitoring Plan, and revising the plan as needed; managing the QAPP development and approval process for NHEP projects; chairing the Shellfish and Living Resources Team and providing support to the Technical Advisory Committee; coordinating selection of projects through competitive project solicitations; managing contracts and projects related to restoration activities; and completing other projects assigned by the NHEP Director to address the program's monitoring and technical assistance needs. Specific work tasks for the position are developed in an annual Agreement with NHDES.

Intern/Work Study Student: The NHEP hires students to complete work for the NHEP on an hourly, as-needed, basis. The intern assists with administrative work (database management, compiling mailings, etc.), organizes the NHEP's final report library – both hard copy and on-line versions, and will complete short-term special projects as needed.

Other Program Support: Additional administrative program support is provided by the UNH Office of Sponsored Research, whose staff develop and manage contract agreements for the NHEP, and the Business Service Center, whose staff handle financial and administrative services for the NHEP including purchasing, payroll, and personnel administration. Costs for services from these departments are covered, in part, by the indirect rate charged to the federal grant.

NHEP Management Committee: Members of the Management Committee provide valuable in-kind support for operation of the NHEP and implementation of the Management Plan. The Management Committee meets at least quarterly and periodically conducts work outside of meetings. In-kind support for 2007 is estimated at \$5,000, based on actual hours committed to NHEP meetings and activities by individuals in previous years. This estimate is conservative; it does not represent travel time or time spent on NHEP activities outside of meetings. This estimate excludes time spent by committee members who serve in federally funded positions or other members whose time cannot be counted toward the match requirement for the NHEP grant.

### **Administrative/Office Expenses for 2007**

Supplies and Office Expenses – This includes postage, phone and data lines, copying, printing, office supplies, meeting supplies, and hardware and software for four work stations (**\$6,750**).

Travel – Costs for NHEP staff and Management Committee members to attend regional and national meetings and conferences in 2007. Projected travel costs in 2007 are shown below (**\$6,000**).

Anticipated Travel in 2007

<b>Event</b>	<b>Location</b>	<b>Date</b>	<b>Traveler(s)</b>	<b>Cost</b>
NEP/ANEP Annual Meeting	Washington, DC	March 2007	Jennifer Hunter, plus other NHEP staff or Management Committee member	\$2,200
National Indicators Workshop	TBD	Late spring/early summer	Phil Trowbridge	\$500
NEP/ANEP Fall Meeting	TBD	Fall 2007	Jennifer Hunter, plus other NHEP staff	\$2,500
Estuarine Research Foundation Conference	Providence, RI	November 2007	NHEP Staff TBD	\$800

Indirect (facilities and administrative costs) – The University’s indirect costs (also known as facilities and administrative or F&A costs) are assessed at a rate of 20% for the NHEP grant, which is below UNH’s standard rate of 34.2%. The indirect cost waiver granted by UNH allows the NHEP to commit more funds to project implementation. The Year 11 grant includes **\$73,767** for indirect charges. This includes \$45,967 for F&A charges for direct costs (calculated at 20% of direct administrative costs) and \$27,800 for F&A for subawards made by the University (calculated at 20% of the first \$25,000 of each subaward to be made by the University).

#### IV. Year 11 Budget: Funding Allocation for 2007

Work Plan ID	Project/Activity	NHEP Funding	Matching Funding	Total Funding
07-A-1	Erosion and Sedimentation Control Project	\$40,000	\$20,000	\$60,000
07-A-2	Support for PRC*	\$0	\$130,000	\$130,000
07-D-1	Habitat Restoration Project(s)	\$60,000	\$30,000	\$90,000
07-B-1	NHDES Shellfish Program	\$0	\$150,000	\$150,000
07-C-1	NROC Program Implementation*	\$0	\$0	\$0
07-C-2	NROC Community Grants	\$5,000	\$5,000	\$10,000
07-C-3	Buffer Protection Outreach and Assistance*	\$0	\$0	\$0
07-C-4	Community Technical Assistance Program	\$20,000	\$0	\$20,000
07-C-5	Land Protection Transaction Fund	\$15,000	\$15,000	\$30,000
07-E-1	Local Grants Program	\$45,000	\$22,500	\$67,500
07-E-2	Newspaper Series*	\$0	\$0	\$0
07-E-3	General Outreach*	\$0	\$0	\$0
07-E-4	VIP Boat Tours	\$1,000	\$0	\$1,000
07-E-5	Prime Wetlands Outreach*	\$2,000	\$0	\$2,000
07-E-6	Outreach on NHEP Indicators*	\$500	\$0	\$500
07-E-7	Assistance to Volunteer Organizations*	\$500	\$0	\$500
06-M-1	2007 Monitoring Program**	\$0	\$63,000	\$63,000
07-Admin-1	Progress Report*	\$0	\$0	\$0
07-Admin-2	Maine Subcommittee*	\$0	\$0	\$0
07-Admin-3	Fund Development Plan Implementation*	\$0	\$0	\$0
07-Admin-4	Monitoring Plan Update*	\$0	\$0	\$0
Management/Admin	NHEP Management Committee	\$0	\$5,000	\$5,000
Management/Admin	NHEP/UNH Staff	\$216,183	\$0	\$216,183
Management/Admin	NHEP/NHDES Staff (Coastal Scientist)**	\$0	\$0	\$0
Management/Admin	Work Study Student	\$900	\$0	\$900
Management/Admin	Office Supplies/Materials	\$6,750	\$0	\$6,750
Management/Admin	Travel	\$6,000	\$0	\$6,000
Management/Admin	Indirect	\$73,767	\$52,100	\$125,867
<b>TOTAL</b>		<b>\$492,600</b>	<b>\$492,600</b>	<b>\$985,200</b>

(\*) Denotes activities requiring NHEP staff time, although no cost/low cost is indicated (costs are captured in Staff line).

(\*\*) Denotes 2007 activities/costs budgeted in the Year 10 Grant and Work Plan.