

longislandsoundstudy

NATIONAL ESTUARY PROGRAM SUMMARY WORK PLAN

FOR

FEDERAL FISCAL YEAR 2012 FUNDING

FOR

COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN

IMPLEMENTATION ACTIVITIES

DURING THE PERIOD

October 1, 2012-September 30, 2013 or beyond
[FY2013]

**WITH PRIOR YEAR GOALS/ACCOMPLISHMENTS/HIGHLIGHTS
FOR THE PERIOD**

October 1, 2010- September 30, 2011
[FY2011]

June 1, 2012

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A. GENERAL INFORMATION REPORTING REQUIREMENTS

1. CCMP 2012 GOAL FOCUS

The Long Island Sound Study (LISS) Comprehensive Conservation and Management Plan (CCMP) approved in 1994 by the States of New York (NY) and Connecticut (CT) and by the U.S. Environmental Protection Agency (EPA), identified the following primary action areas that continue to require coordinated and sustained action by the Management Conference:

- 1) hypoxia, or the lack of dissolved oxygen in the water column;
- 2) toxic substances pollution;
- 3) pathogen contamination;
- 4) floatable debris pollution;
- 5) management and conservation of living resources and their habitats;
- 6) land use and development; and
- 7) public involvement and education.

In addition, the need to continue the Management Conference was identified as an important, unifying component to support implementation. With the enactment of the Long Island Sound Improvement Act of 1990 (P.L. 101-596), the LISS Management Conference was made permanent – “The Administrator *shall* continue the Management Conference of the Long Island Sound Study...” This FY2012 Work Plan, prepared under EPA’s draft National Estuary Program (NEP) guidance, dated February 14, 2012, directly supports these goal areas with NEP and LISS funding as described herein.

Under the Management Conference structure, the CCMP established a broad-based and integrated approach to addressing the primary environmental and management problem areas identified. This approach required significant and sustained Management Conference coordination, involvement and funding – at all levels. Further, the CCMP identified a number of existing and ongoing environmental management programs of the Management Conference that would serve as the foundation for addressing the Sound’s priority problems. New or separate programs or efforts to implement the CCMP were only to be created to fill gaps or better integrate efforts, such as the LIS Futures Fund (LISFF), LIS Research Fund, and CCMP Enhancements program.

Ongoing core environmental programs that contribute to or support CCMP implementation include other Federal programs and funds directed to land use and watershed management, water quality, living resource conservation, management and regulation, as well as state and local programs aimed at regulating human and environmental impacts on the Sound. Many of these programs are delegated to the states, which have the responsibility, authority and accountability for implementing them.

The CCMP anticipated many funding streams and a variety of funding sources for successful implementation of its recommendations -- over time, by the LISS partners. The CCMP also envisioned an educated public and informed constituency for the sustained effort to restore, enhance, and preserve the Sound as a national treasure and a ‘green’ engine of economic activity.

Designated as an Estuary of National Significance in 1985, the LISS is an inherent part of EPA's NEP program and subsequent Large Aquatic Ecosystem (LAE) program.

Because of its importance to the region, Long Island Sound had been included as a separate line item and has received funding under EPA's President's Budget request since FY1999. In 2005, Long Island Sound was included as a goal area in EPA's then newly developed Strategic Plan. LIS is one of EPA's LAE's along with Chesapeake Bay, the Great Lakes, Puget Sound and others. The Long Island Sound program is included in EPA's Strategic Plan for FY2011-2015 under Goal 2, *Protecting America's Waters*, Objective 2.2, *Protect and Restore Watersheds and Aquatic Ecosystems*, Subobjective 2.2.7, *Restore and Protect Long Island Sound*. One of the LISS's four major environmental goals has been included with a goal target in the Strategic Plan: reducing the area of the maximum hypoxic event occurring in the summer months by 15 percent from baseline by 2015. There are four principal environmental and ecological outcomes for these measures stated in EPA's 2012 *National Water Program Guidance*:

- Marine and tributary waters that meet prescribed state water quality standards – waters that are fishable, swimmable, and that support --
- diverse habitats of healthy, abundant and sustainable populations of aquatic and marine-dependent species in --
- an ambient environment that is free of substances that are potentially harmful to human health or that otherwise may adversely affect the food chain, supported by --
- an educated and informed citizenry that actively participates in the restoration and protection of this invaluable resource.

a. NEP Implementation Review. The LISS underwent its last (FY2006-2008) CCMP Implementation Review from June 1-3, 2009 that focused on primary CCMP implementation areas and determined that sufficient progress was being made and funding was being directed to highest priority areas. A final findings letter was provided to the LISS by EPA NEP HQ on December 29, 2009, citing two challenges – development of nonpoint source Total Maximum Daily Loads (TMDLs) and use of ecosystem-based management (EBM). The LISS partners indicated that they continue to address EBM in their organizations and will report any progress in subsequent annual LISS NEP Work Plans; and secondly, that the LISS is a non-regulatory program with TMDL development delegated to the states for implementation at their discretion. The LISS is scheduled for its next Implementation Review in 2014 with data packages due to HQ by February 28, 2014.

2. FY2012 LISS BUDGET BREAKDOWN

This document summarizes tasks and deliverables contained in EPA FY2012 assistance awards to Management Conference partners that account for the FY2012 EPA Environmental Programs and Management (EPM) appropriation for the LISS NEP, and for EPM funding provided by EPA for LIS under the annual President's Budget Request. These funds include \$597,200 in NEP allocations under Clean Water Act (CWA) §320, and \$3,956,000 under CWA §119 as enacted. EPA utilizes two Program Results Codes (PRCs) for LIS in the Agency's budget: 202B67 for §119 EPM funding, and 202B89 for §320 EPM funding. Grants are awarded by EPA Region 1

and 2 as delegated under EPA Delegations of Authority 2-42 and 2-94 under the authority of §119 per NEP funding guidance.

The work activities and the budget amounts contained in this NEP Summary Work Plan were approved by EPA and the LISS Management Committee at its Thursday, April 19, 2012 meeting. The record of the Management Committee meeting is documented in Mark Tedesco’s April 24, 2012 memorandum entitled, *FY2012 LISS Work Plan and Grant Application Guidance*. The LISS budget is organized into the four Program Elements outlined below; the FY2012 LISS budget breakdown by Program Element is:

Program Element	Amount
<i>Coordination and Reporting of Environmental Actions/Results</i>	\$312,552 (7%)
<i>Public Outreach, Information and Education</i>	\$467,589 (10%)
<i>Monitoring, Modeling and Research</i>	\$1,304,052 (29%)
<i>CCMP Implementation, Technical Assistance/Regulatory Support</i>	\$2,467,007 (54%)

To implement this summary Work Plan, EPA will issue seven new assistance awards to partners and amend five current assistance awards to include the FY2012 funding under this Work Plan. In addition, EPA will continue work under two Interagency Agreements (IAs) executed in FY2010 for implementation efforts with its Federal partners, the US Fish & Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). LISS partners receiving FY2012 funds have been directed to submit their formal Federal assistance award applications (SF424s) to EPA Regional grants management offices on or before June 1, 2012. **Attachment 1** is a detailed breakdown of the FY2012 approved budget by LISS Program Element, Products/Services, Implementing Agency, and Environmental Outcome(s). The Environmental Outcomes are derived from the individual partner grant work plans based on EPA Order 5120.

3. LISS STAFF AND THEIR OFFICIAL RESPONSIBILITIES

The LISS provides funding to certain of its partners to support staff resources to carry out key elements of implementing the CCMP. **Attachment 2** lists the FY2012 LISS-funded staff by name, title and description of their major roles and responsibilities. Each LISS partner’s federal assistance award work plan provides details on the deliverables, outputs and expected environmental outcomes for LISS-funded staff functions as required by EPA Order 5120. In addition to the staff listed in Attachment 2, the Connecticut Department of Energy and Environmental Protection (CTDEEP) hires seasonal staff to assist with conducting the LIS summer water quality monitoring program as necessary; these, and overtime costs for water quality monitoring staff are included in that award, but are not shown in Attachment 2 because of the seasonal nature of the positions that may be filled by different incumbents during the period of employment. Each EPA grantee is responsible for managing its personnel under its own organization’s human resource management policies and procedures.

The EPA employs two full-time equivalent (FTEs) federal employees that staff the EPA Long Island Sound Office (LISO). A director, appointed by the Administrator under §119, and a senior program analyst who plan, organize, coordinate and manage program operations in order to assist the Management Conference partners in CCMP implementation. These FTEs are not funded from the LISS, but from other EPA EPM resources. EPA Region 1 provides approximately 75 percent of an FTE to support EPA efforts for Long Island Sound in Region 1. Region 1 also provides a US Government vehicle for LISO use. EPA provides, from its Working Capital Fund appropriation, support for leasing office space for the LISO through the General Services Administration. EPA Region 2 provides technical and management support to the program through the Division of Environmental Planning and Protection and EPA Region 1 provides staff and technical support through the Office of Ecosystems Protection. Region 2 provides other administrative support for official business, such as procurements, funds control and management, information technology and telecommunications support, grants management, and other policy and program management requirements. This support is essential to operating and maintaining the EPA LISO, and is provided from other EPA EPM appropriations.

4. SUB-AWARDS

Attachment 3 lists the FY2012 LISS budget by recipient organization; as the total funding for each recipient may consist of one or more EPA grant awards or amendments to existing grants, **Attachment 4** lists the FY2012 budget by individual EPA assistance award number by grantee; where known at this time, the actual EPA assistance award number is provided for reference. However, the award process is dynamic and final award numbers and amounts may differ from Attachment 4 as actually awarded by EPA, since this NEP summary Work Plan is due by June 1, 2012 and the grant award process does not complete until September 30, 2012. Details of the sub-award purpose, project deliverables, and project completion dates are provided in Section B of this Work Plan below. Attachments 3 and 4 also show the required non-federal matching funds and the overall actual aggregate match requirement for the LISS.

For FY2012 Federal assistance awards, the CTDEEP is providing an annual ‘overmatch’ in its EPA assistance award in order for the LISS to meet the overall aggregate match for the NEP as required under CWA §320. The CTDEEP overmatch is from one sewage treatment plant project in Connecticut. This also allows other recipients and sub-awardees that are not in a position to meet matching funds requirements to apply for LISS grant programs, ensuring broader participation in the work of the LISS Management Conference from academic researchers and institutions, local environmental organizations, interest groups and associations, as well as other qualified regional or watershed organizations. [NB: Final assistance award amounts and grant numbers are issued by EPA pending final EPA Regional Administrators’ or their delegates’ action on individual awards, and each award is subject to the special terms and conditions contained therein.]

In FY2012, the LISS is providing funding to ten LISS partners through twelve new or amended awards: NFWF [1], NYSDEC [1], CTDEEP [1]; the New England Interstate Water Pollution Control Commission (NEIWPCC) [2]; the Connecticut Sea Grant College Program (CTSEA) [2]; the New York Sea Grant Program (NYSEA) through Cornell University’s Office of Sponsored Programs (OSP) [2]; NYSEA through the Research Foundation of the State

University of New York at Stony Brook [1]; the University of Connecticut (UConn) Center for Land Use Education and Research (CLEAR) through the UConn OSP [1]; and the New England Regional Association of Coastal and Ocean Observing Systems (NERACOOS) [1]. Federal partners that received FY2010 funding through IAs for continuing work in FY2012 include the USFWS through its Southern New England Estuary Project Office located in Charlestown, Rhode Island, and the NOAA NMFS through its Northeast Regional Science Center located in Milford, Connecticut.

These partners implement the CCMP and conduct the LISS base program, which includes the LIS Futures Fund Grant program (NFWF), the CCMP Enhancements program (NEIWPC), the LIS Research Grant program (NY/CT SEA), the LIS public outreach and education program (NEIWPC/CT/NYSEA), the habitat restoration program (CTDEEP/NYSDEC/USFWS), and LIS stewardship initiative (USFWS). As indicated above, each of these partners is funded through one or more annual or multi-year EPA assistance awards or IAs as appropriate. These awards are managed by staff of the EPA LISO and EPA Region 1, who are trained and assigned as EPA Project Officers. Because of multi-year awards and varying federal appropriation levels, all partners may not receive LISS funding in every annual budget/work plan cycle.

B. PROPOSED NEW AND ONGOING PROJECTS

Beginning with the FY2008 NEP Work Plan, the LISS adopted the following reporting format in this, Section B, *Proposed New and Ongoing Projects*. This Section B format utilizes a combination of the FY2008 NEP Work Plan Guidance and the September 2008 NEP Program Evaluation Guidance Logic Model format (until updated). To adjust to this reporting format, to the extent feasible, the LISS Program Element activities have been 'broken up' under the following logic model Core Elements and Sub-elements contained in the NEP Program Evaluation Guidance:

Logic Model Core Element: 1. Program Implementation & Reporting: a) Financial Management; b) Tracking/Reporting; c) Program Planning & Administration; d) Outreach & Public Involvement;

Logic Model Core Element: 2. Ecosystem Status & Trends: a) Research; b) Assessment & Monitoring; c) Reporting;

Logic Model Core Element: 3. Ecosystem Protection & Restoration Projects: a) Habitat; b) Water Quality; c) Living Resources; d) Healthy Communities; and

Logic Model Core Element: 4. Technical Assistance and Capacity Building: a) Tools; b) Training; c) Direct Assistance.

Following is the crosswalk between the Logic Model elements the LISS Program Elements:

Logic Model Element	LISS Program Element
<i>CCMP/Work Plan Goal</i>	[LISS CCMP Problem Area, Hypoxia, Pathogens, Toxics, etc.]
<i>Project/Activity Name:</i>	[Program Element/Sub-category description]
<i>Project/Activity Purpose and Description</i> (indicate as Proposed, OnGoing, New, Continuing)	New: first year of project for LISS Continuing: prior year funded project On-Going: multi-year or base program project Proposed: first year project proposed for funds
<i>Responsible Partners and Their Role(s)</i>	[LISS Grantee Name]
<i>Outputs/Products:</i>	same
<i>Milestones</i>	(project start and completion dates) [EPA Grant/IAG Date(s)]
<i>Budget:</i>	[FY2010 to the extent separately identifiable]
<i>Outcomes:</i>	(anticipated and/or completed accomplishments) [Environmental Outputs/Outcomes]
<i>-Short term; Intermediate; Long Term</i>	
<i>-Changes (+/-) in Pressure Targets:</i>	[N/A]
<i>Identify the CWA core program the project would support</i>	[Checklist of 7 Core Elements]

1. Program Implementation and Reporting. Under CWA §119 (33USC1269), the EPA LISO is responsible for the overall management and coordination of the LISS Management Conference convened under CWA §320 and is to *assist* and *support* implementation of the CCMP developed under that Section, *coordinate* the grant, research and planning programs and *provide administrative and technical support* to the Conference.

a. Financial Management. The EPA LISO has overall responsibility for managing EPA LISS appropriated funds, ensuring that these funds are awarded in a timely and efficient manner using the methods and management controls established by the Agency. Since the LISS NEP does not utilize the single assistance agreement process for implementation, but rather is a Federally administered program (as specified under CWA §119) that utilizes a number of separate EPA assistance awards to conduct the program, financial management responsibilities are distributed, not centralized. Each EPA grantee is responsible for financial management under EPA assistance regulations, and must comply with those regulations, either 40CFR Part 30 (educational institution) or 40CFR Part 31 (state/local government) as applicable to the organization.

The EPA LISO manages the individual EPA assistance awards and IAs for each Federal fiscal year cycle of LISS funding. Each LISS grantee is responsible under EPA regulations for fiscal management and accountability for Federal funds it acquires by advance payment or reimbursement. EPA LISO requires semiannual grant progress reports from grantees and periodic Federal Financial Status Reports (SF260s) are to be submitted to EPA’s Las Vegas Financial Center from the grantees’ fiscal offices. EPA LIS grant awards use the identifier prefix, “LI;” NEP awards use the identifier “CE.” Funds accounting by assistance award

number is available online at EPA's Compass Data Warehouse, <http://iasint.rtpnc.epa.gov/neis/adw.welcome>. The LISO monitors drawdown of funds on a monthly basis and provides each grantee with the data on unliquidated obligation (ULO) status and works with grantees to ensure timely and appropriate liquidation of grant balances. LISS grants are made under the Catalog of Federal Domestic Assistance (CFDA) number 66.437, Long Island Sound Program or CFDA number 66.456, the National Estuary Program. EPA LISO semi-annually updates the LISS CFDA description as necessary through EPA's internal process as required by OMB. Grantees are responsible for tracking and accounting of expenditures according to their approved assistance award budgets and must abide by EPA grant regulations and terms and conditions to modify budgets or change program direction. One-time No Cost Time Extensions (NCTE) are available without prior approval from EPA to 40CFR Part 30 awardees (educational institutions), and with EPA approval to 40CFR Part 31 awardees (states). The LISO negotiates and approves any requests for NCTEs with the appropriate EPA Region 1 or Region 2 grants management office.

b. Tracking and Reporting. The EPA LISO is responsible for the overall LISS tracking and reporting systems for the NEP. Each EPA assistance award contains Terms and Conditions with reporting requirements mandated for the NEP's Government Performance and Results Act (GPRA) performance measures for: 1) habitat restoration and protection, and 2) leveraged funds. Under LISO guidance, the LISS produces two biennial reports that provide public information on CCMP implementation progress both from the ecological and program management viewpoints: *Sound Health* and *Protection and Progress*. The latest version of the former was produced in Spring 2010; *Protection and Progress* was issued in November 2011 covering years 2010-2011.

The LISO also tracks and reports the four LIS goal area measures in EPA's Strategic Plan and budget through the Agency's Annual Commitment System (ACS) reporting system. This reports progress to EPA in reducing point source nitrogen discharges to the Sound from the 106 NY and CT STPs discharging in the LIS watershed (LI-SP41); the area of the maximum hypoxic event in the Sound (LI-SP42); the acres of coastal habitat restored or protected (LI-SP43); and river miles reopened to diadromous fish passage (LI-SP44). These data are compiled by LISS Management Conference partners through the LIS water quality monitoring program, and the habitat restoration program, both of which receive LISS funding in this Work Plan.

The LISS tracks CCMP implementation actions through its annual *CCMP Implementation Tracking Report*. The CCMP Implementation Tracking Reports provide detailed tracking by CCMP problem area and 37 sub-areas. FY2010 funding was approved for development of a successor on-line system to report CCMP implementation progress; that system is currently being built, and 2010-11 information will be used to backfill and demonstrate this system. *Sound Health* and *Protection and Progress* will continue to track progress of ecosystem indicators and management actions respectively.

In 2011 the LISS Management Conference partners agreed to a process to revise and update the 1994 CCMP. While currently in its early stages as of this writing, CCMP revision will encompass all LISS partners and the public, and will result in a final document to be issued

by December 2014. Some FY2011 funding has been reprogrammed and some FY2012 funding has been earmarked in the NEIWPC and NYSEA budgets for program and public meeting support in late FY2012 and FY2013. The LISS intends to conduct CCMP revision through internal reprogramming of resources at this time.

CCMP/Work Plan Goal:	Continuing the Management Conference	
Project/Activity Name:	LISS CCMP Implementation Tracking System	
Continuing Project/Activity Purpose & Description:	Review, assess and establish a data reporting system for tracking CCMP implementation activities	
Responsible Partner(s) Role(s):	EPA Long Island Sound Office	
Outputs/Products:	Transfer of system to EPA servers and annual server O&M costs; implementation of system for 2010-11 report.	
Milestones (project start/end dates)	10/1/10-9/30/13 and continuing.	
2012 Budget:	\$30,000 [See Attachment 1, line 2]	
Outcomes: (anticipated and/or completed accomplishments) -Short, Intermediate & Long Term	Coordinated reporting of federal, state, and local government actions to implement the CCMP; accounting for clear annual goals and objectives framed within available funding; access to public, environmental, and financial data for restoration and protection of Long Island Sound.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards, 2) Improving WQ Monitoring, 3) Developing TMDLs, 4) Controlling NPS Pollution on a Watershed Basis, 5) Strengthening NPDES Permits, 6) Supporting Sustainable Wastewater Infrastructure. 7) Wetlands Program Support/Implementation	

c. Program Planning and Administration. As indicated above, the EPA LISO has overall responsibility for administering the LISS Management Conference, which is a multi-grantee, multi-state distributed partnership NEP. LISS partners also have inherent responsibilities in these areas, and are provided funding for administrative staff positions to carry out these overarching functions. LISS grantees have a negotiated Indirect Cost Rate with EPA to cover the overall expenses of their institution in managing federal assistance awards under Office of Management and Budget Circulars A-102, A-87 and A-89. The following charts include information in the required NEP Work Plan format relative to this Logic Model category:

CCMP/Work Plan Goal:	Continuing the Management Conference	
Project/Activity Name:	EPA LISO Support to the Management Conference	
ONGOING Project/Activity Purpose & Description:	Provides support to the Management Conference in implementing the CCMP; overall program coordination, management and direction.	
Responsible Partner(s)	EPA Long Island Sound Office	

CCMP/Work Plan Goal:	Continuing the Management Conference	
Role(s):		
Outputs/Products:	Assistance and coordination of the LISS Management Conference. Development of annual NEP work plan; development and execution of EPA Strategic Plan elements for LIS; development, execution and management of financial assistance agreements; development and submission of GPRA-required reports; tracking and reporting of implementation of CCMP actions; technical assistance to partners in program operations.	
Milestones (project start/end dates)	10/1/12-9/30/13 and continuing.	
2012 Budget:	\$47,167 (administrative support) and \$11,600 (office overhead only), EPA staff N/A [See Attachment 1, lines 1& 2.]	
Outcomes: (anticipated and/or completed accomplishments) -Short, Intermediate & Long Term	Coordinated federal, state, and local government actions to implement the CCMP; clear annual goals and objectives framed within available funding; public, political, and financial support for restoration and protection of Long Island Sound; organized and effective LISS public participation; improved water quality as measured annually by reduced anthropogenic nitrogen deposition and increased dissolved oxygen concentrations; increased habitat restoration and preservation as measured by number of acres of coastal habitat restored/preserved annually; increased species diversity as measured by river miles reopened to diadromous fish passage annually; informed and educated public and citizenry as measured by numbers of publications distributed to target populations and number of website visits; improved management and coordination of implementation actions as measured by reported program indicator outputs and outcomes.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards §304(a)	x
	2) Improving WQ Monitoring §303(d) 305(b)	x
	3) Developing TMDLs §304(b)	x
	4) Controlling Nonpoint Source Pollution on a Watershed Basis §319	x
	5) Strengthening NPDES Permits §402	x
	6) Supporting Sustainable Wastewater Infrastructure	x
	7) Wetlands Program Support/Implementation §404	x

CCMP/Work Plan Goal:	Continuing the Management Conference	
Project/Activity Name:	State Coordination and Technical Assistance	
ONGOING Project/Activity Purpose & Description:	Assist in all aspects of LISS Management Conference program development and support for CCMP implementation in the State of Connecticut.	
Responsible Partner(s)/Role(s):	Connecticut Department of Energy and Environmental Protection	
Outputs/Products:	Involvement of relevant technical staff and programs in LISS activities to protect and restore Long Island Sound, its resources and its habitats, and to protect public health and meet commitments to the LISS partnership. Development of work group products and activities essential to implementation of the CCMP. Due consideration of nitrogen control in	

CCMP/Work Plan Goal:	Continuing the Management Conference	
	watershed planning and management efforts. Steady progress of point source nitrogen reductions as per the TMDL and nitrogen general permit. Update of progress towards implementing CCMP recommendations in the areas of hypoxia, toxic contamination, pathogens, living marine resources and land use. Reports on progress to ensure commitments to protect and restore LIS, and implementation plans are on track. LIS Research and Implementation grants are consistent with and complementary to LISS goals and objectives and productive in restoring and managing Long Island Sound.	
Milestones (<i>project start/end dates</i>)	10/1/12-9/30/13	
2012 Budget:	\$159,362 [See Attachment 1, line 4]	
Outcomes: (<i>anticipated and/or completed accomplishments</i>) -Short , Intermediate & Long Term	Improved marine water quality, improved living resources habitat, and public safety. Improved management and implementation of CCMP goals and objectives. Reduction of storm water and NPS nitrogen loads to Long Island Sound. Reduced nitrogen loads to Long Island Sound consistent with the TMDL WLA.	
-Changes (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	X
	2) Improving WQ Monitoring,	X
	3) Developing TMDLs,	X
	4) Controlling NPS Pollution on a Watershed Basis,	X
	5) Strengthening NPDES Permits,	X
	6) Supporting Sustainable Wastewater Infrastructure.	X
	7) Wetlands Program Support/Implementation	X

CCMP/Work Plan Goal:	Continuing the Management Conference
Project/Activity Name:	State Program Coordination and Management
ONGOING Project/Activity Purpose & Description:	Provides support to the Management Conference in implementing the CCMP; overall program planning, coordination, administration, management and direction in the State of New York and coordination with New York State Department of State and other state/local agencies in New York.
Responsible Partner(s) Role(s):	New York State Department of Environmental Conservation
Outputs/Products:	Coordination and development of activities and products to implement the CCMP. Track progress of programs and projects designed to protect and restore LIS. Electronic and paper reports of the status of resources, water quality and implementation. Coordinate and implement CCMP actions, protect public health, preserve and protect LIS resources and water quality by soliciting and involving expertise from various state programs. Ensure that projects are consistent with NYS regulations and the CCMP. Grant proposals are reviewed for relevance and benefits to LIS. Information sharing, development of recommendations, strategies and identification of data gaps regarding wetlands loss in LIS. Increased knowledge of existing site conditions (e.g. WQ information at tidally restricted sites); will also be used to collect additional data at the 4 wetland loss research sites. DEC will

CCMP/Work Plan Goal:	Continuing the Management Conference	
	be able to more effectively partner in restorations, by being able to assist in gathering essential information. Develop and implement CCMP actions as directly related to NPS pollution reduction, protect public health, preserve and protect LIS resources and WQ by soliciting and involving expertise from various state programs.	
Milestones (<i>project start/end dates</i>)	10/1/12-9/30/13	
2012 Budget:	\$0 [See Attachment 1, line 4] Prior year carryover funding will fund this activity in FY2013.	
Outcomes: (<i>anticipated and/or completed accomplishments</i>) -Short , Intermediate & Long Term	Coordinated management and implementation of CCMP and LIS Agreement goals and objectives. Progress towards implementing the CCMP management actions. Improved water quality, habitat, resources and stewardship. Increased public awareness of progress of LIS management activities. Protection and preservation of water quality, habitat and public health. Improved understanding and coordination of wetlands loss issues. Increased public awareness and stewardship of the estuary. Improved ability to determine restoration suitability; better enables DEC to act as a partner to get restoration projects initiated. Improved public awareness, stewardship, WQ, protection of public health, and implementation of CCMP and LIS Agreement goals and objectives.	
-Changes (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	x
	2) Improving WQ Monitoring,	x
	3) Developing TMDLs,	x
	4) Controlling NPS Pollution on a Watershed Basis,	x
	5) Strengthening NPDES Permits,	x
	6) Supporting Sustainable Wastewater Infrastructure.	x
	7) Wetlands Program Support/Implementation	x

d. Outreach and Public Involvement. The LISS provides grants to several of its partners to conduct the Public Outreach, Information and Education (PI&E) program, which is a Program Element of the LISS. NEIWPC and NY/CT SEA are primarily responsible under their LISS grant awards to carry out the public outreach program. The LISS has created a Communications Team consisting of staff of these partners and other interested parties, including members of the LISS Citizens Advisory Committee (CAC). The Team meets periodically to develop and carry out its annual work plan as reflected in each grant award. In addition, NFWF conducts the Small Grants program as part of the LISFF Grant program, and at the recommendation of a review team that includes LISS Communications Team members, may also make awards for approved PI&E projects under the LISFF Large Grants program. **Attachment 5** lists the FY2011 LISFF Large and Small Grant projects, which are also posted on the LISS website and NFWF website, <http://www.nfwf.org>. FY2011 preliminary or anticipated results are provided below in the Accomplishments section.

The LISO and LISS provide significant support to the CAC, which is co-chaired by an elected member each from New York and Connecticut. Coordinated by the NY/CT SEAs,

the CAC meets quarterly at alternating locations in Connecticut and New York and provides advice to the Management Conference partners in implementing the CCMP. The CAC operates under its Bylaws and is composed of up to 60 members who represent organizations with a demonstrated interest in Long Island Sound. Financial support for CAC meetings is provided through NEIWPC's PI&E line item in its LISS assistance award. CAC members are reimbursed for their travel expenses directly related to attending CAC meetings [see **Attachment 6**].

In addition, the CAC meets as needed with the STAC to jointly review program priorities from a scientific perspective and to update each other on issues of scientific and public concern. The CAC co-chairs are members of the Management Committee, and provide a public perspective at Management Committee meetings. The CAC also appoints two liaisons to the STAC, one each from New York and Connecticut to represent the CAC at STAC meetings. The CAC's operating subcommittees work with LISS work groups and teams in developing program priorities, projects, and in accomplishing implementation actions. These subcommittees are *Policy, Legislative & Advocacy, Accountability & Reporting, and Local Government*. CAC members participate on LISS teams and work groups and attend those meetings as appropriate.

The **Outreach and Public Involvement** program area of the required NEP Work Plan format is summarized below:

CCMP/Work Plan Goal:	Public Outreach, Information and Education
Project/Activity Name:	PI&E, Small Grants and PI&E Project Support
ONGOING Project/Activity Purpose & Description:	Supports the Management Conference in conducting the LISS public outreach, information and education program through staff resources and products, services and supplies.
Responsible Partner(s) Role(s):	NEIWPC, NYSEA, CTSEA; NFWF, direct implementation of LISS PI&E program.
Outputs/Products:	Production of three issues of <i>Update</i> for distribution throughout the LIS region. Production of six issues of <i>Sound Outlook</i> for distribution throughout the LIS region. Bi-monthly issuance of <i>Sound Bytes</i> , an electronic mail update of current LIS issues; Reporting of up to 80 indicators using LIS monitoring data and other resources. Update of progress towards implementing CCMP recommendations in the areas of hypoxia, toxic contamination, pathogens, living marine resources and land use. Fact sheets that summarize timely topics on LIS issues that can be widely distributed in paper or web site formats. Award small and medium sized grants to public, private and government entities to implement LIS restoration and education projects. Communication of LIS issues and successes to a wide variety of interested citizens, educational entities, and professional societies. Provide LISS and agency information about LIS to the public and assist other agency staff in reporting efforts meeting CCMP goals. Communication of LIS issues and resource value to state citizens and LIS awareness to the general public in the watershed.
Milestones (project start/end dates)	October 1, 2012-September 30, 2013 (or as specified in individual assistance awards)
2012 Budget:	NEIWPC: \$147,501; NYSEA: \$142,074; CTSEA: \$109,564; NFWF:

CCMP/Work Plan Goal:	Public Outreach, Information and Education	
	\$65,450; [see Attachment 1, lines 6-11]	
Outcomes: <i>(anticipated and/or completed accomplishments)</i> -Short, Intermediate & Long Term	Informing public and increasing citizen activism to improve stewardship and individual actions beneficial to a healthy LIS. Informing and increasing public knowledge and citizen activism on LIS issues. Increasing awareness of the state of LIS health and promoting changes in lifestyle that might benefit the Sound. Assessment of progress and key report to citizens involved in the LISS that will lead to necessary adjustments in management direction. Publicity to support LIS management activity and to inform public about trends in LIS health to create public activism Improved habitat and water quality and increased public awareness and participation in LIS affairs Fulfill public request for knowledge about LIS and educational needs; promote better stewardship of the Sound Increased awareness for the protection and restoration of LIS to the general public and improved management decisions for the LISS partner agencies. Increased awareness for the protection and restoration of LIS to the general public and promote better stewardship of the Sound. Some NEIWPC funding may be used for CCMP revision support (~\$3,000).	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	x
	2) Improving WQ Monitoring,	x
	3) Developing TMDLs,	x
	4) Controlling NPS Pollution on a Watershed Basis,	x
	5) Strengthening NPDES Permits,	x
	6) Supporting Sustainable Wastewater Infrastructure.	x
	7) Wetlands Program Support/Implementation	x

CCMP/Work Plan Goal:	Public Outreach, Information and Education	
Project/Activity Name:	Upper Basin TMDL Outreach and Education	
Continuing Project/Activity Purpose & Description:	To inform and educate the public and managers in the upper LIS basin states of New Hampshire, Vermont and Massachusetts of the requirements and impacts of the nitrogen TMDL.	
Responsible Partner(s) Role(s):	NEIWPC	
Outputs/Products:	Plan, organize, and conduct public meetings in upland states; record public comments and report on results.	
Milestones <i>(project start/end dates)</i>	October 1, 2011-September 30, 2013	
2012 Budget:	\$16,949 [see Attachment 1, line 22]	
Outcomes: <i>(anticipated and/or completed accomplishments)</i> -Short, Intermediate & Long Term	A more cooperative and publicly understood process in the upland LIS watershed states for achieving reduced nitrogen loads delivered to the Sound, reduced hypoxia, and attainment of state water quality standards through TMDL adoption in upland states.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project	1) Strengthening WQ Standards,	x

CCMP/Work Plan Goal:	Public Outreach, Information and Education	
Support Core programs are:	2) Improving WQ Monitoring,	X
	3) Developing TMDLs,	X
	4) Controlling NPS Pollution on a Watershed Basis,	X
	5) Strengthening NPDES Permits,	X
	6) Supporting Sustainable Wastewater Infrastructure.	X
	7) Wetlands Program Support/Implementation	X
	8) Other: Public Involvement and Education	X
	CCMP/Work Plan Goal:	Public Outreach, Information and Education
Project/Activity Name:	Sustainable Yard Care	
NEW Project/Activity Purpose & Description:	To create behavior change in public to promote sustainable yard care practices.	
Responsible Partner(s) Role(s):	NY Sea Grant College Program	
Outputs/Products:	Plan, organize, and conduct public meetings; record public comments and report on results.	
Milestones (project start/end dates)	October 1, 2012-September 30, 2013	
2012 Budget:	\$35,000 [see Attachment 1, line 18.d.]	
Outcomes: (anticipated and/or completed accomplishments) -Short, Intermediate & Long Term	Create human behavior change to improve water quality through sustainable yard care practices.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	
	2) Improving WQ Monitoring,	
	3) Developing TMDLs,	
	4) Controlling NPS Pollution on a Watershed Basis,	X
	5) Strengthening NPDES Permits,	
	6) Supporting Sustainable Wastewater Infrastructure.	
	7) Wetlands Program Support/Implementation	
	8) Other: Public Involvement and Education	X

2. Ecosystem Status and Trends. The LISS monitors ecosystem status and trends for a suite of 80+ environmental indicators. These indicators are posted on the LISS website, <http://www.longislandsoundstudy.net> and a subset of selected indicators of interest to the public is produced biennially in the LISS publication, *Sound Health* last published in 2010. The indicators are linked back to CCMP problem areas and provide information on the abundance, diversity, distribution, viability, and/or quality and trends of the resource being monitored. Updating these indicators on a periodic basis is a complex process. The LISS does not directly pay for or support the data collection efforts for the vast majority of the diverse suite of environmental indicators; these are the province of other entities that are either directly

responsible for that data collection by law, statute, regulation or by history or organizational preference. The below-described (#4) LISS- funded NOAA ecologist position helps to support this area.

a. Research. The LISS Research Grant program is a cooperative effort between EPA and the New York and Connecticut Sea Grant College programs, to which each have contributed funds and expertise in review of proposals and identification of peer reviewers. In FY2012 the Management Committee approved a scientific research budget of \$425,000. These funds will be awarded to the Sea Grant programs for an RFP in FY2012 when funds will be combined with \$500,000 approved in FY2011.

CCMP/Work Plan Goal:	Monitoring, Modeling and Research	
Project/Activity Name:	Long Island Sound Research Grant Program	
ONGOING Project/Activity Purpose & Description:	To administer the LISS Research Grant program by identifying scientific research needs and priorities for LIS, solicit and review project proposals and ensure the selection and management of the highest priority projects with available funds.	
Responsible Partner(s) Role(s):	NYSEA/CTSEA, jointly administer and manage the LIS research program.	
Outputs/Products:	Develop Request for Preliminary and Final Proposals; List of research selected for funding; manage research projects; request, review and process progress reports and final report per research project.	
Milestones (project start/end dates)	October 1, 2011-September 30, 2012	
2012 Budget:	\$425,000 [\$212,500 NYSEA, \$212,500 CTSEA] See Attachment 1, line 14.	
Outcomes: (anticipated and/or completed accomplishments) -Short, Intermediate, Long Term	Identify, fund and conduct highest priority research relevant to the Long Island Sound 2003 Agreement or its successor and the LISS CCMP and Action Agenda and as established by the STAC; research topics are defined, openly solicited, and selected for funding using a well developed, respected process that is fair and technically-based; new science-based information will be provided to inform decision-making and actions towards reaching the vision and goals for Long Island Sound.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	x
	2) Improving WQ Monitoring,	x
	3) Developing TMDLs,	x
	4) Controlling NPS Pollution on a Watershed Basis,	x
	5) Strengthening NPDES Permits,	x
	6) Supporting Sustainable Wastewater Infrastructure.	x
	7) Wetlands Program Support/Implementation	x

b. Assessment and Monitoring. In FY2012 the Management Committee once again approved funding for the LIS ambient water quality (WQ) monitoring program conducted by CTDEEP. The program provides the basis for the determination of hypoxic, and other ambient conditions in LIS and to determine state compliance with water quality standards for dissolved oxygen (DO). This information is reported by CTDEEP and is used by the LISS to

report annual progress in meeting both NEP and EPA Strategic Plan goals and targets for the area and duration of hypoxia. The following charts describe the WQ monitoring program conducted by CTDEEP and other partners' monitoring and assessment projects approved in the FY2012 budget.

CCMP/Work Plan Goal:	Monitoring, Modeling and Research	
Project/Activity Name:	LIS Water Quality Field Surveys	
ONGOING Project/Activity Purpose & Description:	To monitor and assess the ambient conditions of water quality in LIS and provide management with information for decision-making.	
Responsible Partner(s) Role(s):	CTDEEP, conduct of WQ monitoring and analysis of LIS open waters.	
Outputs/Products:	Nutrient and ancillary data to evaluate benefits of nutrient management programs and health of LIS. Dissolved oxygen data and maps of areal extent and duration of hypoxia in LIS. Tissue data is required to update the health consumption advisories in CT and NY. Organized and available database (to researchers and the public); interpretive graphics and fact sheets for public consumption on web site. Plankton community data to evaluate biological condition and response to changing water quality.	
Milestones (project start/end dates)	October 1, 2012-September 30, 2013	
2012 Budget:	\$779,052 [see Attachment 1, line 12]	
Outcomes: (anticipated and/or completed accomplishments) -Short, Intermediate, Long Term	Improved water quality assessment to guide management activities. Improved planktonic community assessment to guide management activities. Improved dissolved oxygen assessment to protect living resources and to determine criteria compliance in CT and NY. Greater safety of CT and NY residents who consume LIS seafood. Better public involvement and management of LIS nutrient and oxygen conditions. Improved stewardship. Data for researchers to complement their projects. Improved water quality assessment to guide management activities. In 2011 the maximum area of hypoxia in the Sound was 130 square miles lasting for 54 days compared to pre-TMDL averages of 208 square miles and 56 days.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	x
	2) Improving WQ Monitoring,	x
	3) Developing TMDLs,	x
	4) Controlling NPS Pollution on a Watershed Basis,	x
	5) Strengthening NPDES Permits,	x
	6) Supporting Sustainable Wastewater Infrastructure.	x
	7) Wetlands Program Support/Implementation	x

Project/Activity Name:	Monitoring, Modeling and Research
NEW Project/Activity Purpose & Description:	Nitrogen Best Management Practices Installation/Monitoring
Responsible Partner(s) Role(s):	University of Connecticut Center for Land Use Education and Research

Outputs/Products:	Reduction of N loading from ~79,000 gallons of urban runoff, annually to LIS.	
Milestones (<i>project start/end dates</i>)	October 1, 2012- September 30, 2013	
2012 Budget:	\$66,603 [see Attachment 1, line 15]	
Outcomes: (<i>anticipated and/or completed accomplishments</i>) -Short, Intermediate & Long Term	Scientific support for use of innovative stormwater practices; establish groundwork for widespread adoption of best management practices in the LIS watershed for NPS management; measurable reductions of NPS nitrogen loads to LIS.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	X
	2) Improving WQ Monitoring,	X
	3) Developing TMDLs,	X
	4) Controlling NPS Pollution on a Watershed Basis,	X
	5) Strengthening NPDES Permits,	X
	6) Supporting Sustainable Wastewater Infrastructure,	X
	7) Wetlands Program Support/Implementation	X

CCMP/Work Plan Goal:	Monitoring, Modeling and Research	
Project/Activity Name:	TMDL development support through a NYS LIS Watershed Municipal Separate Storm Sewer (MS4) Engineer	
CONTINUING Project/Activity Purpose & Description:	The TMDL reassessment; evaluation of applicable storm water BMPs to optimize reductions from MS4s; developing a retrofit plan; the BMP evaluation and implementation plan development could be used as a template for controlling storm water from urban areas throughout the watershed.	
Responsible Partner(s) Role(s):	New York State Department of Environmental Conservation	
Outputs/Products:	The development of an MS4 baseline load; analysis of the feasibility of the currently required 10% reduction from these sources; analysis of the feasibility to increase the level of reduction that could be achieved from an MS4 through storm water management practices; evaluate the potential for trading between MS4 loads and Sewage Treatment Plant (STP) loads; recommendations for storm water BMPs to optimize nitrogen reductions from MS4 (BMP Implementation Plan Development); completion of TMDL Reassessment	
Milestones (<i>project start/end dates</i>)	10/1/10-9/30/13; Grant No-Cost Time Extension approved.	
2012 Budget:	\$0 [see Attachment 1, Line 21, FY2010 funds shown in brackets]	
Outcomes: (<i>anticipated and/or completed accomplishments</i>) -Short, Intermediate, Long Term	Improved scientific basis for management decisions; reduced nitrogen loads from storm water; improvement in local water body in addition to reduced nitrogen to LIS; better, smarter growth; improved water quality; greater understanding of the storm water loads coming from the NY portion of LIS watershed	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project	1) Strengthening WQ Standards,	

CCMP/Work Plan Goal:	Monitoring, Modeling and Research	
Support Core programs are:	2) Improving WQ Monitoring,	
	3) Developing TMDLs,	X
	4) Controlling NPS Pollution on a Watershed Basis,	X
	5) Strengthening NPDES Permits,	X
	6) Supporting Sustainable Wastewater Infrastructure.	X
	7) Wetlands Program Support/Implementation	

CCMP/Work Plan Goal:	Monitoring, Modeling and Research	
Project/Activity Name:	Coastal Hazard Zone Mapping, New York	
NEW Project/Activity Purpose & Description:	To establish and maintain several sites to measure potential impacts of climate change on coastal resources and communities.	
Responsible Partner(s) Role(s):	NYSDEC	
Outputs/Products:	Measurement and demonstration of climate change expression in LIS; baseline information for measuring future change impacts; preparation of LIS as a climate-ready estuary; potential establishment of long term, continuous monitoring stations and data sets.	
Milestones (project start/end dates)	October 1, 2012-September 30, 2013	
2012 Budget:	\$170,000 [See Attachment 1, line 18.i.]	
Outcomes: (anticipated and/or completed accomplishments) -Short, Intermediate, Long Term	Protected water quality; alleviation of detrimental water quality effects of sea level rise on these areas and infrastructure; increased, protected or identification of at-risk habitats for fish, wildlife, marine resources; preservation of public enjoyment of a natural resource or increased opportunity for public information and education; improved water quality.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	X
	2) Improving WQ Monitoring,	X
	3) Developing TMDLs,	
	4) Controlling NPS Pollution on a Watershed Basis,	X
	5) Strengthening NPDES Permits,	
	6) Supporting Sustainable Wastewater Infrastructure.	
	7) Wetlands Program Support/Implementation	X

CCMP/Work Plan Goal:	Monitoring, Modeling and Research	
Project/Activity Name:	Water Quality Monitoring Enhancements	
NEW Project/Activity Purpose & Description:	To monitor and assess the ambient conditions of water quality in LIS and provide management with information for decision-making.	
Responsible Partner(s) Role(s):	Northeastern Regional Association of Coastal and Ocean Observing Systems	
Outputs/Products:	Project will procure mapping & data products - DO sensors (2); deploy	

CCMP/Work Plan Goal:	Monitoring, Modeling and Research	
	nutrient sensors; O&M of CT River sensors; DO buoy (1).	
Milestones (<i>project start/end dates</i>)	October 1, 2012-September 30, 2013	
2012 Budget:	\$310,973 [see Attachment 1, line 18.h.]	
Outcomes: (<i>anticipated and/or completed accomplishments</i>) -Short, Intermediate, Long Term	Assessment of water quality management program impact; interpretation of stream flow variability on salinity in critical coastal habitats; better assessment of trends in managed nutrients; improved assessment of water quality models.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	X
	2) Improving WQ Monitoring,	X
	3) Developing TMDLs,	X
	4) Controlling NPS Pollution on a Watershed Basis,	X
	5) Strengthening NPDES Permits,	X
	6) Supporting Sustainable Wastewater Infrastructure.	X
	7) Wetlands Program Support/Implementation	X

CCMP/Work Plan Goal:	Monitoring, Modeling and Research	
Project/Activity Name:	LIS Sentinel Monitoring	
ONGOING Project/Activity Purpose & Description:	To identify sentinels, obtain baseline data and measure against climate impacts for early warning indicators of environmental change.	
Responsible Partner(s) Role(s):	CTDEP/NYSDEC, Sentinels Work Group	
Outputs/Products:	Identify climate change drivers and potential indicators to assist in identifying responses in LIS and its coastal eco-regions; implement bi-state sentinel monitoring strategy for climate change; oversee implementation of a dynamic pilot monitoring program from a broader strategy; enhance public outreach, education, awareness and participation in climate change adaptation issues and inform management decisions on adaptation planning; and pursue additional funding to expand monitoring program and data synthesis	
Milestones (<i>project start/end dates</i>)	October 1, 2009-September 30, 2013	
2012 Budget:	\$100,000 [see Attachment 1, line 18] (payback from NYSDEC for 2012 RFP)	
Outcomes: (<i>anticipated and/or completed accomplishments</i>) -Short; Intermediate;& Long Term	Early identification of environmental change through sentinel indicator flora/fauna; development of adaptive management implementation or mitigation strategies to address changes.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards	

CCMP/Work Plan Goal:	Monitoring, Modeling and Research	
	2) Improving WQ Monitoring	
	3) Developing TMDLs	
	4) Controlling NPS Pollution on a Watershed Basis	
	5) Strengthening NPDES Permits	
	6) Supporting Sustainable Wastewater Infrastructure	
	7) Wetlands Program Support/Implementation	x

c. Reporting. Costs for producing *Sound Health* and *Protection and Progress* are budgeted for in the NEIWPC assistance award as necessary and as approved by the Management Committee for the appropriate budget year. These activities are usually funded in the year preceding the publication of the appropriate report to allow for establishment of financial commitments necessary to produce the documents. Copies of these reports are available upon request or electronic versions are posted on the LISS website for reference. A full suite of LIS ecosystem indicators is also posted on the LISS website, cited above. For FY2012, funds are requested for production of *Sound Health* in 2014.

3. Ecosystem Protection and Restoration Projects. The LISS Futures Fund Grant program and the LISS CCMP Enhancements program are the primary LISS vehicles for funding implementation projects to address CCMP and other program priorities. The LISS Futures Fund, consisting of Large Implementation Grants (\$20,000-\$500,000); Planning, Innovation and Education Grants (\$20,000-\$150,000); and Long Island Sound Study Public Participation, Information and Education Grants Program Small Grants (\$1,000-\$10,000) projects, is administered by NFWF. In FY2012, the LIS Futures Fund is funded at \$1,225,000 and the Small Grants component is funded at \$65,450. These represent 23% reductions to the FY2012 Enacted Budget level allocated to LISFF from FY2011 levels.

The CCMP Enhancements program is administered by NEIWPC and is funded at \$447,221 in FY2012 for priority projects approved by the LISS Management Committee. These projects are responsive to the *Long Island Sound Action Agenda* and are described in brief in Attachment 1, line 18.

As noted, the below Logic Model subcategories are eligible funding categories under the LISFF. FY2011 LISFF-funded projects are listed in **Attachment 5**. At this time LISFF projects cannot be characterized under this Logic Model format as 2012 projects have not yet been selected.

a. Habitat; b. Water Quality; c. Living Resources; d. Healthy Communities.

CCMP/Work Plan Goal:	CCMP Implementation Support and Technical Assistance
Project/Activity Name:	LISS Futures Fund
ONGOING Project/Activity Purpose & Description:	To provide resources for priority CCMP implementation projects at the state and local level to qualified applicants.
Responsible Partner(s) Role(s):	NFWF, plans, coordinates, conducts and administers the LISS Futures Fund Grant Program

CCMP/Work Plan Goal:	CCMP Implementation Support and Technical Assistance	
Outputs/Products:	Issue RFP to solicit a diverse range of project proposals (45-60 proposals) that address problems identified in the LISS <i>CCMP</i> ; conduct two webcast workshops to encourage applicants to develop a technically sound and diverse range of project proposals (45-60 proposals) that address problems identified in the LISS <i>CCMP</i> . Provide technical assistance to 40-50 potential applicants to help them develop the most useful projects to address the problems identified in the LISS <i>CCMP</i> . Develop and distribute one press release in CT and NY to announce RFP and awards. Develop and implement one grant award event in either NY or CT. Meet with potential public, nonfederal and private funders. Support LISS and EPA/LISO to develop accomplishments brochures and other materials. Outreach to three or more Congressional offices to respond to inquiries and raise profile of implementation elements of the LISS Futures Fund in terms of federal investment around the Sound.	
Milestones (<i>project start/end dates</i>)	October 1, 2012-September 30, 2016* Actual dates under negotiation with EPA.	
2012 Budget:	\$1,250,000 [See Attachment 1, line 19]	
Outcomes: (<i>anticipated and/or completed accomplishments</i>) -Short, Intermediate, Long Term	Increase the number and type of project proposals to the grant programs to address the problems identified by the LISS <i>CCMP</i> . Increase community support for the grant programs and interest in the projects as a means to encourage public engagement to solve the problems identified in the LISS <i>CCMP</i> . Increase agency and Congressional support for the grant programs to provide additional resources to address the problems identified in the LISS <i>CCMP</i> . Support both a greater number of projects and larger, more complex projects that address the problems identified in LISS <i>CCMP</i> . Increase public and Congressional understanding of accomplishments and challenges faced in LIS and addressed by various LISS initiatives.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards	x
	2) Improving WQ Monitoring	x
	3) Developing TMDLs	x
	4) Controlling NPS Pollution on a Watershed Basis	x
	5) Strengthening NPDES Permits	x
	6) Supporting Sustainable Wastewater Infrastructure	x
	7) Wetlands Program Support/Implementation	x

CCMP Work Plan Goal:	CCMP Implementation Support and Technical Assistance	
Project/Activity Name:	LISS Stewardship Land Acquisitions	
Continuing Project/Activity Purpose & Description:	To provide resources for priority CCMP LIS Stewardship Initiative acquisitions at the state and local level.	
Responsible Partner(s) Role(s):	CTDEEP/NYSDEC	
Outputs/Products:	Acquisition of properties identified by the LISS Stewardship Initiative work group for protection.	

CCMP/Work Plan Goal:	CCMP Implementation Support and Technical Assistance														
Milestones (<i>project start/end dates</i>)	n/a														
2012 Budget:	\$0. The Management Committee agreed not to provide funds for Stewardship project acquisitions in FY2012 due to the lower budget amount available from the FY2011 Enacted level for the LISS. Current acquisitions will continue with prior year funding until closed. [See Attachment 1, line 22]														
Outcomes: (<i>anticipated and/or completed accomplishments</i>) -Short, Intermediate & Long Term	Protection of habitats of ecological, recreational, and public access value; protection of endangered, threatened, and rare species of plant and animal habitats; demonstration of effective public and private partnerships in habitat conservation.														
Δ (+/-) in Pressure Targets	N/A														
CWA Core Program Project Support Core programs are:	<table border="1"> <tr><td>1) Strengthening WQ Standards</td><td></td></tr> <tr><td>2) Improving WQ Monitoring</td><td></td></tr> <tr><td>3) Developing TMDLs</td><td></td></tr> <tr><td>4) Controlling NPS Pollution on a Watershed Basis</td><td></td></tr> <tr><td>5) Strengthening NPDES Permits</td><td></td></tr> <tr><td>6) Supporting Sustainable Wastewater Infrastructure.</td><td></td></tr> <tr><td>7) Wetlands Program Support/Implementation</td><td></td></tr> </table>	1) Strengthening WQ Standards		2) Improving WQ Monitoring		3) Developing TMDLs		4) Controlling NPS Pollution on a Watershed Basis		5) Strengthening NPDES Permits		6) Supporting Sustainable Wastewater Infrastructure.		7) Wetlands Program Support/Implementation	
1) Strengthening WQ Standards															
2) Improving WQ Monitoring															
3) Developing TMDLs															
4) Controlling NPS Pollution on a Watershed Basis															
5) Strengthening NPDES Permits															
6) Supporting Sustainable Wastewater Infrastructure.															
7) Wetlands Program Support/Implementation															

4. Technical Assistance/Capacity Building. The LISS provides technical assistance and capacity building through a variety of means. Several LIS Futures Fund 2011 projects provide support in this area. For example a project to engage sweet corn farmers in improving their farming practices to reduce nitrogen runoff to the Sound exemplifies assistance to build these practices into future farming cultures.

While funded in the 2010 budget cycle for a two-year period, due to personnel vacancies, the following LISS-funded Federal staff positions will provide ongoing significant technical assistance for the LISS in FY2012:

CCMP/Work Plan Goal:	CCMP Implementation Support & Technical Assistance
Project/Activity Name:	USFWS Wildlife Biologist/LISS Liaison Support
ONGOING Project/Activity Purpose & Description:	The USFWS Liaison provides technical support to the LISS Management Conference to address wildlife/habitat-related issues including but not limited to essential habitat classification, mapping and management, invasive species, environmental indicators, integrated monitoring of water and biota. The Liaison will provide technical support to coordinate, manage, and report on LISS programs and manage grants and contracts as assigned
Responsible Partner(s) Role(s):	US Fish & Wildlife Service, Southern New England-New York Bight Coastal Ecosystems Program, Charlestown, RI
Outputs/Products:	Annual GPRA habitat reports for EPA; Habitat restoration information for the LISS website; Annual HRI work plans that detail priorities, highlight accomplishments, and identify funding needs; Technical reviews and recommendations regarding project funding; accurate and up-to-date grant

CCMP/Work Plan Goal:	CCMP Implementation Support & Technical Assistance	
	files; documents and forms required for grant awards, extensions, and close-outs; approved project reports from grantees; the management plan focuses on feasible, cost-effective practices that can be undertaken to prevent and control invasive species; technical and grant assistance to stewardship area stakeholders; SI information for the LISS website; presentations to the public; annual SI work plans that detail priorities, highlight accomplishments, and identify funding needs; proposal reviews and recommendations regarding project funding.	
Milestones (<i>project start/end dates</i>)	10/1/10-9/30/13 [2-year renewable Interagency Agreement] vacancy filled by incumbent December 2011.	
2012 Budget:	\$0 [see Attachment 1, line 17, 2 year budget, prior year funds.]	
Outcomes: (<i>anticipated and/or completed accomplishments</i>) -Short, Intermediate & Long Term	Restoration of the Sound’s coastal habitat to maintain healthy and viable populations of fish & wildlife in LIS; implementation of the LISS CCMP to protect and restore LIS; prevention and control of aquatic invasive species in LIS; protection and enhancement of the Sound’s ecological and recreational resources	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	
	2) Improving WQ Monitoring	
	3) Developing TMDLs	
	4) Controlling NPS Pollution on a Watershed Basis	
	5) Strengthening NPDES Permits	
	6) Supporting Sustainable Wastewater Infrastructure	
	7) Wetlands Program Support/Implementation	x

CCMP/Work Plan Goal:	CCMP Implementation Support & Technical Assistance	
Project/Activity Name:	NOAA/NMFS LISS Liaison Support	
ONGOING Project/Activity Purpose & Description:	The NOAA Ecologist position provides technical support to the LISS Management Conference to address fisheries ecology and aquatic habitat-related issues including, but not limited to essential habitat classification, mapping and management, invasive species, environmental indicators, integrated monitoring of water and biota. The liaison provides technical support to coordinate, manage, and report on LISS programs and manage grants and contracts as assigned.	
Responsible Partner(s) Role(s):	NOAA/NMFS Northeast Fisheries Science Center, Milford, CT	
Outputs/Products:	Technical reports to highlight accomplishments, and identify funding needs; technical reviews and recommendations regarding project funding; accurate and up-to-date grant files; approved project reports from grantees; the management plan focuses on feasible, cost-effective practices that can be undertaken to prevent and control invasive species; technical and grant assistance to stakeholders; fisheries/indicators information for the LISS website; presentations to the public; annual work plans that detail priorities, highlight accomplishments, and identify funding needs; proposal reviews and recommendations regarding project funding.	

CCMP/Work Plan Goal:	CCMP Implementation Support & Technical Assistance	
Milestones (<i>project start/end dates</i>)	10/1/10-9/30/13 [2-year Interagency Agreement] vacancy to be filled by incumbent, May 2012.	
2012 Budget:	\$0 [see Attachment 1, line 16; 2 year budget, prior year funds.]	
Outcomes: (<i>anticipated and/or completed accomplishments</i>) -Short, Intermediate & -Long Term	Restoration of the Sound’s fisheries habitat to maintain healthy and viable populations of fish in LIS; implementation of the LISS CCMP to protect and restore LIS; prevention and control of aquatic invasive species in LIS; protection and enhancement of the Sound’s ecological and fisheries resources.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards	x
	2) Improving WQ Monitoring	x
	3) Developing TMDLs	
	4) Controlling NPS Pollution on a Watershed Basis	
	5) Strengthening NPDES Permits	
	6) Supporting Sustainable Wastewater Infrastructure	
	7) Wetlands Program Support/Implementation	

a. Tools. This Work Plan provides funding for development of several programmatic tools. As an example, EPA is developing a new tracking tool for CCMP implementation actions based on the Chesapeake Bay model. The web-based application enables users to access CCMP implementation data and information.

CCMP/Work Plan Goal:	CCMP Implementation Support and Technical Assistance	
Project/Activity Name:	LISS CCMP Enhancements Program	
ONGOING Project/Activity Purpose & Description:	To provide resources for priority CCMP implementation projects at the state and local level to qualified applicants.	
Responsible Partner(s) Role(s):	NEIWPCC, plans, coordinates, conducts and administers the LISS CCMP Enhancements Program	
Outputs/Products:	Development of RFPs for NPS/Stormwater Tracking System, Synthesis of Current Sentinel Monitoring Data, Sentinel Monitoring Implementation, Habitat Restoration Online Database Improvements, Marsh Migration Modeling, Ecological Value Inventory Documentation, and LIS Economic Valuation.	
Milestones (<i>project start/end dates</i>)	October 1, 2012-September 30, 2013* *end date under negotiation with EPA	
2012 Budget:	\$447,221, NPS/Stormwater Tracking (\$44,619); Sentinel data synthesis, (\$73,250); Sentinel implementation,(\$150,000); Habitat database improvements, (\$54,427); Marsh migration modeling, (\$44,500); Ecological value inventory, (\$12,810); LIS economic data, (\$67,615) [See Attachment 1, line 18.]	
Outcomes: (<i>anticipated and/or completed accomplishments</i>) Short, Intermediate &	Reduction of NPS and stormwater loading of nitrogen to Long Island Sound; active management and enhanced response to priority climate change impacts in LIS; improved predictive ability of changing LIS ecosystems leading to more effective protection and management; improved presentation	

CCMP/Work Plan Goal:	CCMP Implementation Support and Technical Assistance	
Long Term	and access to LIS habitat data by the public and other user groups; increased habitat quality in LIS through improved understanding of marsh migration; more complete data on the Important Ecological Areas; data will be used to increase utility of the GIS Stewardship Site Selection Strategy Tool; economic valuation of LIS resources to support the CCMP and TMDL revisions.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards	
	2) Improving WQ Monitoring	X
	3) Developing TMDLs	X
	4) Controlling NPS Pollution on a Watershed Basis	X
	5) Strengthening NPDES Permits	X
	6) Supporting Sustainable Wastewater Infrastructure	X
	7) Wetlands Program Support/Implementation	X

b. Training. The LISS will continue to fund the CT Sea Grant’s LIS Mentor Teacher program, which trains a cadre of K-12 educators to train-the-trainers in the use of LIS as a teaching tool and resource for NY and CT teachers. The Long Island Sound Mentor Teacher (LISMT) program has consistently recruited high quality, creative, and respected teachers to assist their peers in incorporating LIS content into curricula within the scope of the CT Science Frameworks. In 2010 the program expanded to the New York portions of the LIS watershed, with initial mentor teacher workshops being held. The NY Sea Grant via Cornell Cooperative Extension program assisted in conducting the first mentor teacher workshops in New York in 2010 and will continue into 2012.

CCMP/Work Plan Goal:	CCMP Implementation Support and Technical Assistance
Project/Activity Name:	LISS Mentor Teacher Training Program
ONGOING Project/Activity Purpose & Description:	Increase awareness and understanding of the importance of Long Island Sound and its watershed by training a cadre of teachers to mentor the student population.
Responsible Partner(s) Role(s):	CT Sea Grant/NY Sea Grant; direct implementation
Outputs/Products:	Recruit six (6) mentor teachers and facilitate planning sessions for workshop development (grade level cohorts K-2, 3-5, 6-8); conduct three (3) LIS Mentor Teacher workshops for K-12 formal and informal educators; support LIS Educators Conference; conduct 3 NY mentor teacher workshops.
Milestones (project start/end dates)	October 1, 2011-September 30, 2012
2012 Budget:	\$35,049 CT and \$6,940 NY [See Attachment 1, line 9]
Outcomes: (anticipated and/or completed accomplishments) Short, Intermediate & Long Term	Development of grade appropriate, multidisciplinary workshops utilizing LIS curricular resources; provision of LIS resources and appropriate pedagogy to result in increased educator and student understanding of LIS and issues facing LIS; educated teacher ranks in K-12 grades in New York and Connecticut portions of the Long Island Sound watershed.

CCMP/Work Plan Goal:	CCMP Implementation Support and Technical Assistance	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards	
	2) Improving WQ Monitoring	
	3) Developing TMDLs	
	4) Controlling NPS Pollution on a Watershed Basis	
	5) Strengthening NPDES Permits	
	6) Supporting Sustainable Wastewater Infrastructure	
	7) Wetlands Program Support/Implementation	x

CCMP/Work Plan Goal:	CCMP Implementation Support and Technical Assistance	
Project/Activity Name:	Connecticut Green Infrastructure Symposium	
NEW Project/Activity Purpose & Description:	To advance these fundamental components of the CCMP by providing municipal land use officials and public works directors with the tools necessary to actively adopt a Green Infrastructure (GI) approach to managing stormwater through municipal land use regulations, codes and ordinances throughout the Long Island Sound watershed in Connecticut and beyond.	
Responsible Partner(s) Role(s):	CT DEEP; direct implementation	
Outputs/Products:		
Milestones (project start/end dates)	October 1, 2012-September 30, 2013	
2012 Budget:	\$45,000 CT [See Attachment 1, line 18.j.]	
Outcomes: (anticipated and/or completed accomplishments) Short, Intermediate & Long Term	The water quality and resource-based planning and management measures presented at the symposium will provide the foundation for a consistent and coordinated approach to promoting sound land use throughout the state to protect and restore the Sound's living resources, water quality, and vital habitats; decreased NPS pollution leading to increased LIS water quality; increased awareness of GI implementation; pre-cursor to project that will result in decreased NPS pollution and improved LIS water quality	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards	
	2) Improving WQ Monitoring	
	3) Developing TMDLs	
	4) Controlling NPS Pollution on a Watershed Basis	x
	5) Strengthening NPDES Permits	
	6) Supporting Sustainable Wastewater Infrastructure	
	7) Wetlands Program Support/Implementation	x

c. Direct Assistance. The LISS is one of the oldest of the NEPs, and it has technically capable support staff in diverse fields of expertise, from scientists to managers to field personnel. The combined resources of the Management Conference, which include the states of New York and Connecticut’s environmental management agencies, New York City, and

other Federal and state institutional partners, are sufficient to carry out CCMP implementation, and dwarf the amount of NEP and EPA LIS funding provided for this purpose. The partners provide such technical assistance and build such implementation capacity for local environmental and other groups as may be necessary and appropriate to their ongoing missions. The LISS does fund staff in partner agencies to support direct implementation. Staff include the LISS habitat restoration coordinators in both states.

CCMP/Work Plan Goal:	CCMP Implementation Support & Technical Assistance	
Project/Activity Name:	LISS Habitat Restoration/Coordination	
ONGOING Project/Activity Purpose & Description:	The purpose of this position is to conduct activities associated with LISS including: preparing, assisting municipalities, and evaluating project applications for habitat restoration, assessment, monitoring and research funding. Develop partnerships to restore LIS habitats. Work with regional staff to help partners prepare project work plans that are compatible with state regulations. Coordinate NYSDEC and CTDEEP activities associated with the LISS Habitat Restoration Initiative.	
Responsible Partner(s) Role(s):	NYSDEC; CTDEEP; direct implementation	
Outputs/Products:	Engage new and existing LISS partners in LISS habitat restoration activities; increase project proposals for habitat restoration activities in the LIS watershed; plan, coordinate and implement restoration of the twelve priority habitat types as outlined in the LISS Habitat Restoration Strategy adopted by the Policy Committee in 1998; work with LISS communications team to issue press releases, promotional materials, and other communication items addressing habitat restoration in the LIS watershed.	
Milestones (project start/end dates)	10/1/12-9/30/13	
2012 Budget:	\$80,632, CTDEEP; \$44,629 NYSDEC via NEIWPC [See Attachment 1, line 15]	
Outcomes: (anticipated and/or completed accomplishments) -Short, Intermediate, Long Term	Restored and protected habitat in the LIS watershed; increased public awareness about current or planned habitat restoration and restoration activities in the LIS watershed; progress towards LISS Habitat Restoration Initiative (HRI) goals for restoring habitat and river corridors that improve health of living resources in the LIS environment; additional and leveraged funding brought to restoration activities and increased acreage/miles improved to benefit LIS water quality and biological health; public outreach about HRI and accomplishments; implementation of habitat restoration projects and effective communication to the public.	
Δ (+/-) in Pressure Targets	N/A	
CWA Core Program Project Support Core programs are:	1) Strengthening WQ Standards,	x
	2) Improving WQ Monitoring	x
	3) Developing TMDLs	x
	4) Controlling NPS Pollution on a Watershed Basis	x
	5) Strengthening NPDES Permits	x
	6) Supporting Sustainable Wastewater Infrastructure	x
	7) Wetlands Program Support/Implementation	x

C. PREVIOUS YEAR'S (FY2011) PROJECTS/ACTIVITIES HIGHLIGHTS

1. Goals and Accomplishments. *Describe goals that the program met and highlight programmatic accomplishments as well as project/activity short-term and intermediate outcomes. Highlight long-term environmental results achieved wherever possible. Include outcome and/or environmental results information about projects that required substantial NEP staff time but which were sponsored/funded by others, e.g., foundations, Federal or state partners.*

A. CCMP GOAL AREA: HYPOXIA/NUTRIENT MANAGEMENT.

Point Source Load Reduction. As reported under EPA's 206-2011 Strategic Plan (SP-41) and Office of Water 2011 National Water Program Guidance reporting system, ACS, the LISS partners continued the point source nitrogen reduction program in Long Island Sound in 2011, the latest report available. The total Trade-Equalized (TE) point source nitrogen load for 2011 was 33,878 TE lbs/day, with the 2014 goal of 22,774 TE lbs/day. The EPA Strategic Plan target for 2011 was 55 percent. Overall, the program exceeded this annualized percentage to goal target, with 69 percent of the 2014 target having been achieved as of December 2011. It is important to keep in mind that New York City (NYC), as part of a Consent Agreement with the state of New York, had taken significant STP processing capacity off-line during construction upgrades for biological nitrogen control at affected STPs. For a number of years there was a continuing 'bulge' in discharge of nitrogen, which is now being eliminated as construction is completed and NYC treatment plants come back on line.

While the LISS does not directly fund this goal area and important CCMP activity, funds for STP nitrogen upgrades come from a combination of other EPA State Revolving Funds, Connecticut's state Clean Water Fund and New York state's Clean Water/Clean Air Bond Act funds and other sources, including NYC bonds and funding for NYC STP upgrades. The LISS does include these resources in its Leveraged Funds report to NEP HQ, as it was the LISS that precipitated the 1998 bi-state nitrogen reduction agreement of 58.5 percent over a 15 year period that began with TMDL approval by EPA in 2000. Significant EPA LISO and Region 1 staff time is spent following up on TMDL implementation and LISS funding has been used to conduct various studies and projects to ensure that the upland states of Massachusetts, New Hampshire and Vermont's contributions to the total nitrogen load to the Sound are included in a scheduled revision to the TMDL. The LISS funded 50 percent of a CTDEEP technical position to support TMDL revision work in 2011 and as discussed above, an upper basin public outreach and education program conducted by NEIWPC that began in 2010. **Figure 1** depicts the point source loadings from 2000-2011.

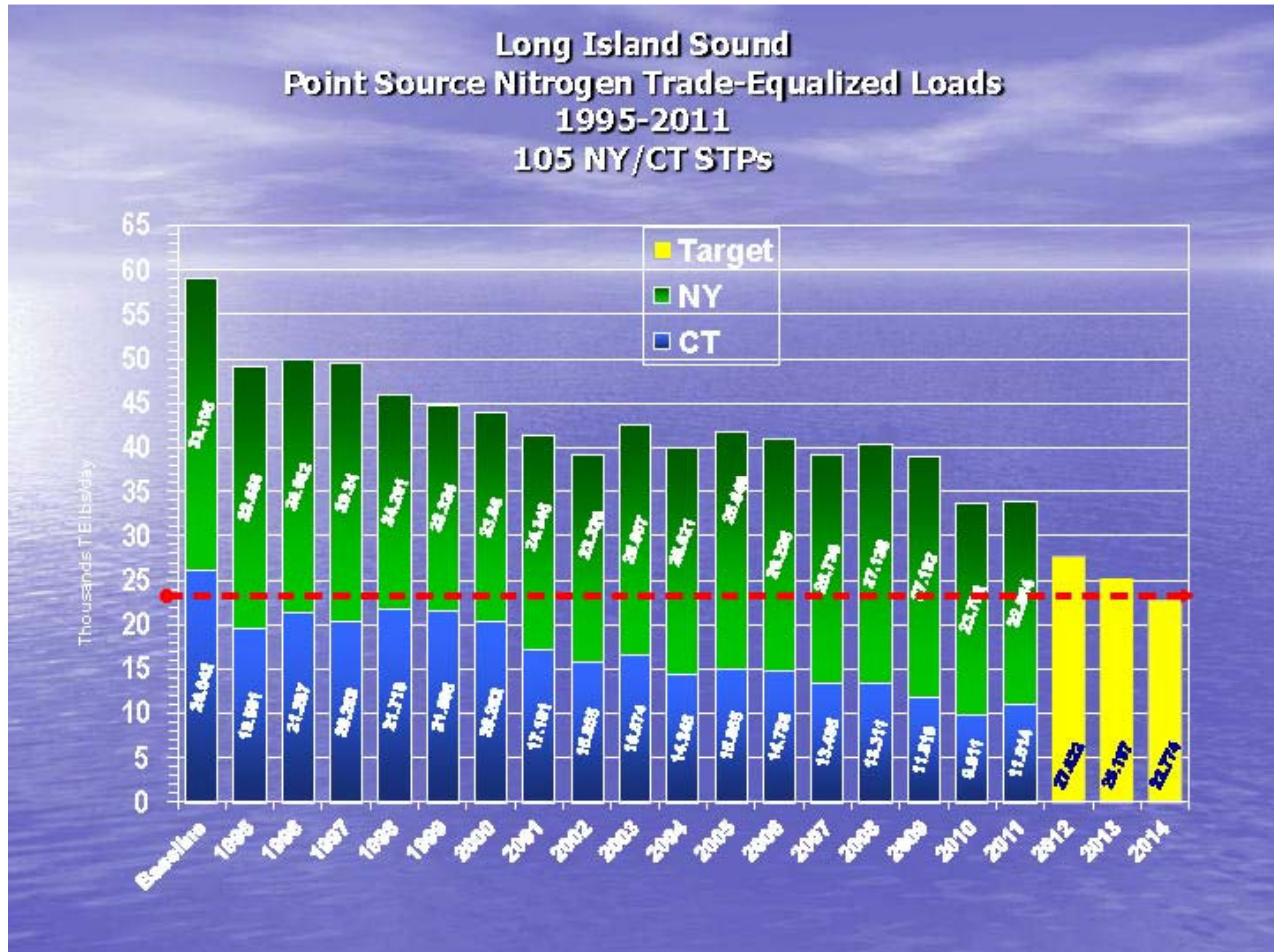


Figure 1

Area/Duration of Hypoxia. As reported under EPA’s 2006-2011 Strategic Plan (SP-42) the area (square miles mi^2) and duration (days) of the maximum hypoxic event in Summer 2011 with less than 3 milliliters (ml) of dissolved oxygen (DO) per liter of bottom ($\sim <1m$) water ($<3ml/DO$) was estimated to be 130 square miles, which lasted for a period of 54 days [error margins $\pm 85 mi^2$, ± 15 days]. This compares very well with the 13-year pre-TMDL averages of 208 square miles and 56.2 days. The 12-year post-TMDL averages are 175 square miles and 56.4 days. The LISS provides funding to CTDEEP to conduct the LIS WQ monitoring program year-round, with additional monitoring runs during the summer months. Other ambient factors affect the formation of the hypoxic zone in the Sound, including temperature, rainfall, solar radiation, wind, currents and any resulting biological effects such as algae formation.

The strategic measure for this in EPA’s Strategic Plan for 2011-2015 (LI-SP42) is to reduce the area of hypoxia by 15 percent from the pre-TMDL average of 208 square miles, as measured annually by a 5 year rolling average. For 2011, the rolling 5-year average reduction is 28.7 percent. **Figure 2** depicts the area/duration of the maximum hypoxia event in Long Island Sound since 1987 as measured by CTDEEP. Long Island Sound is approximately 1,368 square miles in area.

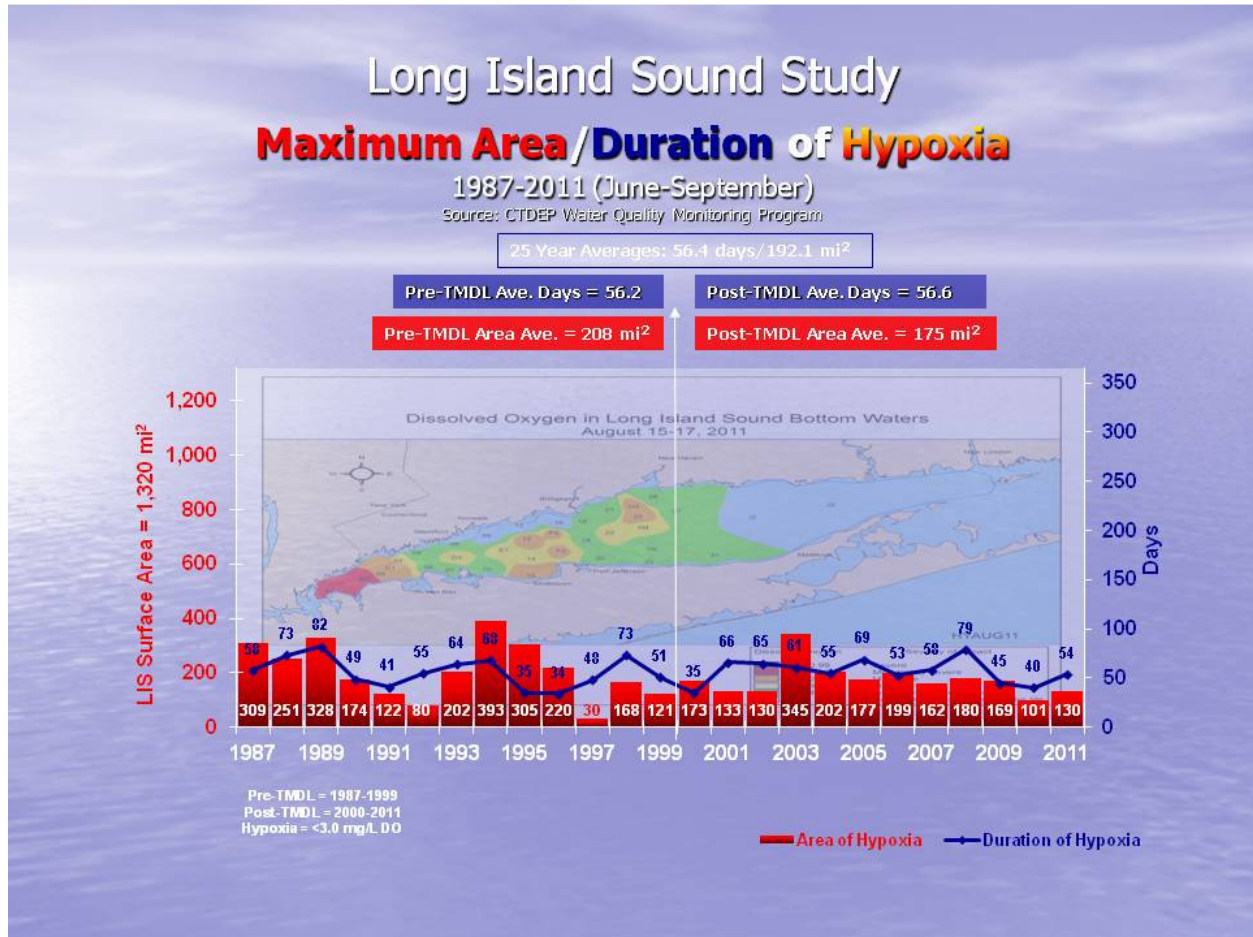


Figure 2

B. CCMP GOAL AREA: MANAGEMENT & CONSERVATION OF LIVING MARINE RESOURCES AND THEIR HABITATS.

Habitat Restoration. As reported in EPA’s 2006-2011 Strategic Plan (SP-43) and the NEP’s NEPORT reporting systems, the LISS restored or protected a total of 361 acres of habitat in 2011. For example, a 16-acre parcel of coastal property consisting of primarily coastal grassland with a narrow band of tidal marsh along Wequetequock Cove was acquired in 2011 from the Crowley family, whose land has 1,000 feet of frontage on one of Connecticut’s least developed coves that is still largely in private ownership. The land abuts 48-acres of salt marsh, wetlands, and coastal forest that was acquired from the Crowley family and added to Barn Island Wildlife Management Area in 2009. As a result of this acquisition, 1,241 acres of contiguous protected open space spans 2.4 miles from the Pawcatuck River to Wequetequock Cove in Stonington, CT. This property was acquired without use of LISS funding but was in partnership with CTDEEP and Avalonia Land Conservancy, the CT Ornithological Society, National Audubon Society-Connecticut Chapter, New Haven Bird Club, Sarah Ann Martin Trust, Stonington Land Trust, Town of Stonington Conservation Commission, and the U.S. Department of Agriculture’s Natural Resource Conservation Service.

The LISS provides funding for individual habitat restoration projects as eligible for competitive funding under the LISS Futures Fund Large Grant program, described below in **Section D**.

Because of the complexity of planning, organizing and carrying out restoration projects in both states, the LISS funds two habitat coordinators, one each in NYSDEC (via NEIWPCC) and CTDEEP, who develop priority LIS projects, including fish passage projects, in their state. These staff positions are included in the description of LISS-funded staff in this Work Plan in Attachment 7. It should be noted that the acres restored/protected and river miles reopened were not all funded by the LISS; the CCMP called for many and varied funding sources to implement its actions. LISFF projects do help contribute to the total acres restored/protected, to the extent that eligible projects are qualified, apply, and are approved for funding.

Fish Passage Restoration. As reported in EPA's 2006-2011 Strategic Plan (SP-44) and EPA's NEPORT, the LISS reopened 0.2 river miles in 2011. A small dam in Betty Allen Nature Preserve blocked migratory fish passage when it was built in the 1970's during park development. Betty Allen Nature Preserve is in one of the Long Island Sound Study's Stewardship areas. This is the first permanent fish passage installed on the North Shore of Long Island. If alewives do not return to the system naturally, the Town of Huntington will work with NYSDEC to stock alewife from a nearby natural fish run. The LISS funds individual fish passage projects as eligible for competitive funding under the LISS Futures Fund Large Grant program. The LISS-funded CTDEEP and NYSDEC habitat restoration coordinators develop projects to reopen fish passage in each state. Because of Connecticut's river and stream network along the LIS shoreline is much more extensive than New York's, the bulk of the fish passage projects are located in Connecticut rivers and streams. Historically there were approximately 562 miles of river in Connecticut that supported diadromous fish runs; currently there are approximately 375 miles of river reaches open to fish passage. This is not meant as a management target for restoration. It should be noted that the river miles reopened were not all funded by the LISS; the CCMP called for many and varied funding sources to implement its actions.

Eelgrass Projects. (\$125,000, FY2009 LISS Enhancements Project). The Management Committee approved this project to create a GIS-based eelgrass habitat suitability model and to produce maps of current and potential eelgrass habitats. Cornell Cooperative Extension of Suffolk County is leading this project with field work support from the University of Connecticut. A Quality Assurance Project Plan was developed and approved in 2011. The tasks to gather available data, develop initial maps, and design fieldwork based on an output of the preliminary GIS model are currently underway in 2012.

In 2011 the Long Island Sound Futures Fund supported one eelgrass restoration project to restore 1.5 acres of historic eelgrass beds at seven sites in New York and Connecticut including: Clinton Harbor, Griswold/Hatchett Point, Two Tree Island/Bartlett Reef, Avery Point/Pine Island, Noank Harbor/Esquer Point, and Mystic Harbor/Lobster Cove, Connecticut; and Old Field Point, Duck Pond Point, Goldsmith's Inlet, and St. Thomas Point, New York; the total grant award was \$139,566.

C. CCMP GOAL AREA: MONITORING, MODELING & RESEARCH.

LIS Scientific Research Program. The LISS, through the CT and NY Sea Grant programs, continued to monitor the four scientific research projects that were selected for funding in FY2008 for the FY2009-2012 project period and the six projects selected in 2010 for the 2011-2014 project period. The abstracts of these projects may be found on the LISS website at: <http://longislandsoundstudy.net/research-monitoring/lis-research-grant-program/project-descriptions/>. The four remaining FY2008 and six remaining FY2010 LISS-funded scientific research projects will continue to be reported on in subsequent NEP work plans as the projects are completed.

FY2008 projects:

- *Summer Synoptic Weather Variability as the Control of the Seasonal Evolution of Hypoxia;*
- *Interaction of Biological and Physical Factors Controlling Bottom Dissolved Oxygen;*
- *Impacts of Climate Change on the Export of the Spring Bloom in Long Island Sound; and*
- *Geochemical Budgeting of Dissolved Gases for Understanding Long Island Sound Hypoxia.*

FY2010 projects:

- *Systematic Evaluation of Nitrogen Removal by BMPs in the Long Island Sound Watershed;*
- *Phase Shifts Among Primary Producers within Long Island Sound: Will Anthropogenic Stressors Continue to Expand the Niche of PSP- and DSP-producing Dinoflagellate Blooms?;*
- *Sources and Fate of Nitrogen in the North Shore Embayments;*
- *The Influence of Gelatinous Zooplankton on Nutrient Cycles, Hypoxia, and Food Webs Across Long Island Sound;*
- *Comparative Analysis of Eutrophic Condition and Habitat Status in Connecticut and New York Embayments of Long Island Sound; and*
- *Nitrogen Removal Capacity of Connecticut Estuaries: Assessing Distribution and Controls.*

The CT and NY Sea Grant programs are in the process of completing the RFP cycle for FY2012 by selecting pre-proposal projects for funding from that cycle. The LISS STAC met in April, June and November 2011 and continued work on the LIS ecosystem data synthesis project to summarize scientific work across several disciplines to produce a printed volume dedicated to historical LIS scientific research findings. It is anticipated that this 400+ page document will be completed and published in Fall 2012.

LIS Eelgrass Monitoring Surveys. USFWS was unable to conduct additional flyovers in 2011 to enrich the data from prior year LISS-funded over-flights due to unfavorable weather conditions that precluded any aerial observations because of ongoing sea turbidity. This work is rescheduled for spring 2012 and will be completed under the IA by September 2012, ambient conditions permitting.

LIS Sentinel Monitoring Program. The LISS Sentinel Monitoring strategy was completed in 2011 and posted on the LISS web site (http://longislandsoundstudy.net/wp-content/uploads/2011/04/LIS_SMstrategy_v1.pdf). Work continued on the development of an

RFP that would use remaining funds from the \$150,000 FY2008 LISS appropriation and the \$100,000 FY2010 LISS appropriation for pilot implementation. A contract was issued in 2011 to develop a data citation clearinghouse of the 37 sentinels and physical parameters identified in the Sentinels Strategic Plan as a basis for data assessment and synthesis, as an aid to identifying data gaps, and to serve as the basis for future monitoring and assessment for management purposes. That project is expected to be completed by September 2012. Six key sentinels have been selected for more detailed monitoring and an RFP issued in March 2012 for data collection. The strategy and RFP were developed by a bi-state team that met regularly in 2011. The bi-state team will continue to meet in 2012 to review applications for the Sentinel Pilot Monitoring RFP and a contract is expected to be awarded for a first year of pilot monitoring to begin August 2012. The bi-state work group has developed a work plan (http://longislandsoundstudy.net/wp-content/uploads/2011/04/2011_2013-SM-Work-Plan.pdf) that includes evaluation of the pilot monitoring program as well as synthesis and dissemination of data from the pilot monitoring and historical data found in the data clearing house.

D. CCMP GOAL AREA: IMPLEMENTATION SUPPORT AND TECHNICAL ASSISTANCE.

Long Island Sound Futures Fund (LISFF) Projects, FY2011. The LISFF provided 39 grants totaling \$1,689,460 million to state and local government and community groups [see **Attachment 5**]. When leveraged by \$2,433,127 contributed by the recipients themselves towards the projects, a total of \$3,122,587 will support on-the-ground conservation in Connecticut and New York. The grant program pools funds from the EPA (\$1,226,604), NFWF (\$31,694), USFWS (\$177,500), NRCS (\$99,650) and NFWF/Walmart (\$100,000) for projects to restore the health and living resources of LIS. The 2011 program funded 21 grants in Connecticut and 18 grants in New York. The LISFF supported 29 large grants (grants greater than \$20,000 to \$150,000) totaling \$1,622,607 and 10 small grants totaling \$66,583 (grants of \$1,000 to \$10,000). Five grants were awarded for water quality; six for habitat restoration; one for species conservation, eight for planning of all types; and nine for education projects. The ten small grants were awarded for educational activities to increase understanding and appreciation of Long Island Sound through community events and activities.

With the funding announced in 2011, grant recipients in both states will restore 176 acres of tidal marsh, grassland, coastal forest, barrier beach and salt marsh benefitting native fish and wildlife; reach 285,000 citizens; and engage 6,300 volunteers. Based on funds distribution as percentages, in FY2011, LISFF projects were categorized as follows: Water Quality, 30%; Stewardship and Habitat, 37%; PI&E –19%; Species, 7%; Tracking & Evaluation, 7%

LIS Stewardship Initiative. Stewardship priority land acquisitions using \$1.5 million in 2010 and \$1.35 million in 2011 funds awarded to CT and NY are being planned by the states of Connecticut and New York. As of this writing, final parcels have been selected but not closed on. Data on acreage protected will be entered into EPA's NEPORT system when available.

LIS Scientific Data Synthesis Report. In FY2011 work continued on the production of a book synthesizing scientific research on Long Island Sound, which is being prepared under the review of the LISS STAC. All book chapters have been written and are undergoing final edits and

reviews. A publisher has been selected to produce the volume upon completion of the data collection and analysis. Publication of the 400+ page volume is expected by Fall 2012.

CCMP Enhancements Program. In FY2011 funds were provided for three projects to enhance CCMP implementation:

- *LIS Embayment Monitoring Phase I: Coordination, \$75,800; Embayment Monitoring Support, Phase II.* NEIWPCC developed and issued the Phase I RFP in 2011. The Maritime Aquarium at Norwalk was selected as the Principal Investigator. A contract was mailed to the Maritime Aquarium on May 1, 2012 for signature. The work will commence once the contract is in place. The final report is due on May 31, 2013. Approximately \$192,000 is available for Phase II of the embayment monitoring coordination work which will remain encumbered until results of Phase I are available.
- *GIS Needs Assessment, \$64,000;* The RFP was developed and issued in May 2012. Proposals are due on June 22, 2012. Applicants will be notified of funding decisions on July 13, 2012. The project is anticipated to begin in August 2012.
- *TMDL Technical Support, \$163,000;* NEIWPCC drafted a work plan for a study to evaluate the feasibility and cost-effectiveness of implementing low-cost biological nitrogen removal (BNR) without significant capital costs at wastewater treatment facilities in the Upper Basin states (MA, VT, NH), which was approved by EPA and the states and an RFP is under development to secure a contractor to complete facility assessments. It is expected work will begin in summer 2012.

E. CCMP GOAL AREA: PUBLIC OUTREACH, INFORMATION & EDUCATION.

Sound Health 2010. During 2011, the Communications Team, supported under the NEIWPCC Base grant, produced its biennial report, *Sound Health*. *Sound Health* was distributed in LIS communities through Sunday newspaper inserts in Connecticut and New York. In addition, throughout the year, *Sound Health* is distributed to schools and community groups and organizations and is in use by LIS Mentor Teachers to educate K-12 students about Long Island Sound. The report is carried on the LISS website, which is also operated and maintained by the LISS communications staff with support from the NEIWPCC grant.

Long Island Sound Citizens Summit. The 21st annual Long Island Sound Citizens Summit entitled *On the Sound Vision Action Plan: Exploring and Identifying Priorities for Long Island Sound* was held on October 8, 2011 at Housatonic Community College in Bridgeport, Connecticut. More than 150 citizens attended the Summit. The LISS, through NEIWPCC, provided support to Save the Sound, a program of Connecticut Fund for the Environment, to plan, organize, and conduct the event. The summit discussed: *A Clean and Healthy Sound: Water Quality; The Sound People Love: Business, Tourism and Recreation; The Sound Environment: Habitat and Wildlife;* and *Getting It Together: The Bi-state Working Group*. Senator Richard Blumenthal (D-CT) was the guest speaker. Planning is underway for the annual Citizens Summit in Fall 2012.

2. Completed Projects. *For completed projects that were funded by a CWA § 320 sub-award, indicate: project purpose; entity that led project implementation; final grant amount – if project came*

in under budget, describe how remaining funds will be reallocated to ensure expenditure during the project period; project deliverable(s) and project completion date.

The LISS is an ongoing partnership of Federal, state and local organizations implementing the cleanup and restoration plan for Long Island Sound. The LISS is not organized by ‘project’ and its program functions are distributed across its partners. Therefore, unless there are specific and discrete sub-grant projects that have been completed, this reporting category does not adequately represent the LISS organizational and reporting structure. However, in FY2011, several partners’ assistance awards funded in prior fiscal years have been completed and their EPA awards closed out:

- NYSDEC: LI-97267405, LIS Water Quality Infrastructure, \$1,984,000; upgraded the wastewater treatment plan in the Village of Port Jefferson (NY) to reduce nitrogen loads to LIS. The plant is currently exceeding (improving) its permit limits for nitrogen.
- NYSDEC: LI-97283304, LIS Water Quality Infrastructure, \$2,482,250; for the Village of Great Neck (NY) Manhasset Bay diversion project, \$108,373; completed a nitrogen removal project at the Oyster Bay sewer district plant, \$2,374,877.
- ICLEI: LI-96119601, Climate Ready Estuaries Program, \$50,000; planned, organized and conducted workshops for local communities and developed a climate response plan and toolbox for the City of Groton, Connecticut. The workshops are summarized on the ICLEI website: http://www.icleiusa.org/climate_and_energy/Climate_Adaptation_Guidance/groton-connecticut-coastal-climate-adaptation-workshop-meeting-notes-and-presentations. The resource toolbox is on the CT website: <http://ctclimatechange.com/index.php/towns/art-adaptation-resource-tool-kit-home-page/>.

3. Success Stories/Transferable Activities, Tools. The LISS is willing to discuss any of its ongoing programs and activities with NEP staff that were felt to be worthy of technology transfer to other NEPs; this can be done in conjunction with this Work Plan. The LISS website, the nitrogen TMDL, the LISS environmental indicators, *Sound Health* and *Protection & Progress* are all examples of successful and transferable products and activities from which the other NEPs may benefit.

4. Support of CWA Core Program Implementation. *Information about the anticipated role the NEP will play in the use of CWA tools; use role definitions in the September 28, 2007 Program Evaluation Funding Guidance: Primary; Significant; Support.*

Based in CWA Sections 119 and 320, this FY2012 NEP Summary Work Plan supports, directly or indirectly, many CWA core programs as indicated in the Office of Water’s 2012 National Program Guidance. In turn, these core EPA regulatory programs support CCMP implementation through permits that establish nutrient levels, or programs that reduce nonpoint source pollution to the Sound. The LISFF supports EPA’s Environmental Justice and Urban Waters initiative projects. For example, the FY2012 Futures Fund RFP listed Urban Waters as a qualifying project category. *Ship to Shore, Coastal Classroom on the East River, Urban Park Rangers, Solar Youth*, and *Rocking the Boat*, in which inner-city and disadvantaged youth are given the opportunity to visit and explore Long Island Sound -- some for the first time -- and to accomplish meaningful conservation work on public lands and waters. More than \$110,000 was provided to

local community and neighborhood groups to conduct this vital work in 2011 and similar project support will continue in 2012 through the RFP.

Because of the LISS nitrogen TMDL, over the last several years, both the states of Connecticut and New York revised their ambient water quality standards (CWA §304) for DO pursuant to EPA's 2000 national guidance for DO in marine waters. Connecticut conducts the LISS ambient water quality monitoring (WQM) program. The data compiled by the LISS WQM program is one of the most robust and extensive datasets on ambient conditions available to scientists, researchers and managers. The LISS nitrogen TMDL (CWA §303(d)) set firm reduction targets and encouraged trading at point sources, and NPDES/SPDES permits (CWA §402) have been modified to incorporate TMDL nitrogen limits on a 15-year enforceable schedule.

The states of New York and Connecticut recognize the significant investments required to support wastewater infrastructure and have passed state bond act funding to sustain efforts to upgrade facilities to reduce nitrogen loads to the Sound as established in the nitrogen TMDL. The State of Connecticut designated all of its LIS waters in 2007 as a No Discharge Zone under the CWA §312 and the State of New York has accomplished a similar designation in NY LIS waters in 2011. The states use authorities and funding under CWA §319 to address priority problem areas of the Sound that originate in the watershed on land. These actions are primary support of CWA core programs, and are ongoing and integral to LISS CCMP implementation to restore and protect Long Island Sound and its watershed.

5. External Factors. *Description of external factors that had an impact on: overall work plan implementation, attainment of specific goals; achievement of project milestones and/or output completion; and description of adaptive management strategies the program used to deal with those factors.*

In FY2012, funding available to the LISS was decreased by approximately 23 percent from FY2011 Enacted level. As a result the LISS was not able to fund any LIS Stewardship acquisitions and was not able to fund a number of additional environmental projects under the LISFF due to the reduction in funding. Using 2011 average project costs, approximately 7 fewer LISFF projects will be funded in FY2012 because of the approximately 19 percent funding reduction to the Futures Fund.

Likewise, the states of New York and Connecticut have felt the impact of state budget constraints with hiring freezes and staff furlough days; staff have been limited in their travel authorizations for LISS and other national, regional or local conference and meetings regardless of funding source; teleconferencing, webinars and video conferencing have been used for LISS work group and other meetings to compensate for staff travel restrictions.

In 2010 the statutory funding authorization for CWA §119 and §320 expired. Legislative efforts to reauthorize have not yet been successful in the 112th Congress. In 2011 the statutory authorization for the Long Island Sound Stewardship Act [P.L. 109-359] expired. The final legislative results of any future reauthorization bills may impact future LISS program implementation and direction.

LONG ISLAND SOUND STUDY
SUMMARY OF FY2012 LISS FUNDING UNDER CWA §119 AND §320
BY PROGRAM ELEMENT

LISS PROGRAM ELEMENT	ACTIVITY/TASK	2012 PRODUCTS/SERVICES	LISS GRANTEE OR FEDERAL IA	2012 BUDGET	ENVIRONMENTAL OUTCOMES
Coordination and Reporting of Environmental Actions and Results: Grants, GPRA, EPA Strategic Plan	EPA Long Island Sound Office Support	1) Telecommunications; printing; copier; postage; supplies, materials.	EPA LISO	\$11,600	Coordinated federal, state, and local government actions to implement the CCMP; clear annual goals and objectives framed within available funding; public, political, and financial support for restoration and protection of LIS.
		2) Office Administrative Support	NCOA	\$47,167	
		3) CCMP Tracking System Deployment	EPA	\$30,000	Comprehensive cross-program reporting of environmental results, benefits and costs.
	NY/CT State Coordination & Technical Assistance	4) Assist in all aspects of LISS program development, reporting and support. [NYSDEC FY12 activities will be funded from prior year carryover funding]	CTDEEP	\$159,362	Involvement of relevant technical staff and programs in LISS activities to protect and restore Long Island Sound, its resources and its habitats, and to protect public health and meet commitments to the LISS partnership.
			NYSDEC	\$0	
	Management Conference Administrative Support	5) National NEP travel; Management Conference Meetings; CAC Meeting Support; NY/CT state travel support for local and national meetings and conferences; CCMP revision support costs.	NEIWPPC	\$64,423	Increased citizen involvement and participation at local and national meetings; increased understanding of issues and ability to inform and advise management conference partners on program direction and policy.
COORDINATION SUBTOTAL:				\$312,552	7%
Public Outreach, Information, Participation and Education	Public Information & Education Program	6) LISS Public Outreach Coordination; project management & support	NEIWPPC	\$107,501	Increasing citizen involvement in CCMP implementation and program direction; informing and increasing public knowledge and citizen participation in LIS issues; increasing understanding of the state of LIS health; better public assessment of progress and production of key reports to citizens involved in the LISS leading to changes in management direction or CCMP implementation.
		7) LISS NY coordination, UPDATE, presentations, press releases.	NY Sea Grant	\$135,134	
		8) LISS CT coordination (80%), presentations, press releases.	CT Sea Grant	\$74,515	
			CT Sea Grant	\$35,049	Development of grade appropriate, multidisciplinary workshops utilizing LIS curricular resources; provision of LIS resources and appropriate pedagogy to result in increased educator and student understanding of LIS and issues facing LIS; educated teacher ranks in K-12 grades in New York and Connecticut portions of the Long Island Sound watershed.
	9) K-12 Mentor Teacher Program in New York and Connecticut; LIS Educators Conference Support	NY Sea Grant	\$6,940		
	Small Grants Program	10) LISS Small Grants Program RFP for public information, education, outreach, and <\$6K projects, e.g., beach cleanups,	NFWF	\$65,450	Informed public and increased citizen participation to improve stewardship and individuals' actions beneficial to a healthy LIS; increasing awareness of the state of LIS health and promoting changes in lifestyle that might benefit the Sound; improved habitat and water quality and increased public awareness and participation in LIS affairs; fulfilled public expectations for knowledge about LIS and educational needs.
	PI&E Program Support	11) Development and distribution of Sound Health 2014 and/or revised CCMP document.	NEIWPPC	\$43,000	
PI&E SUBTOTAL:				\$467,589	10%

Water Quality Monitoring, Modeling and Scientific Research	Water Quality Monitoring & Modeling	12) LIS Water Quality Field Surveys conducted year-round by CTDEEP using <i>RV Dempsey</i> ; includes captain, crew, sampling and analyses at 48 stations in NY and CT LIS waters to support TMDL attainment.	CTDEEP	\$779,052	Improved water quality assessment to guide management activities; improved planktonic community assessment to guide management activities; improved dissolved oxygen assessment to protect living resources and to determine criteria compliance in CT and NY; greater safety of CT and NY residents who consume LIS seafood; better public involvement and management of LIS nutrient and dissolved oxygen conditions affecting living marine resources.	
		13) LIS Sentinel Monitoring Program to identify sentinels, obtain baseline data and measure against climate impacts for early warning indicators of environmental change. [prior FY payback from NY]	CTDEEP	\$100,000	Early identification of environmental change through sentinel indicator flora/fauna; development of adaptive management implementation or mitigation strategies to address changes.	
	NYSDEC		\$0			
	Scientific Research	14) LIS Research Grant RFP for scientific topic areas. STAC meeting support.	NY Sea Grant	\$212,500	Highest priority research relevant to the Long Island Sound 2003 Agreement or its successor and the LISS CCMP is defined, openly solicited, and selected for funding using a well developed, respected process that is fair and technically-based; new science-based information will be provided to inform decision-making and actions towards reaching the vision and goals for Long Island Sound.	
			CT Sea Grant	\$212,500		
	MONITORING, MODELING & RESEARCH SUBTOTAL:				\$ 1,304,052	29%
CCMP Implementation Support, Regulatory and Compliance Assistance, and Technical Assistance	Habitat Restoration Initiative	15) Habitat coordination; priority list of habitat restoration sites; habitat team support for implementation of restoration and protection goals.	CTDEEP	\$80,632	Restored and protected habitat in the LIS watershed; increased public awareness about current or planned habitat restoration and restoration activities in the LIS watershed; progress towards LISS Habitat Restoration Initiative (HRI) goals for restoring habitat and river corridors that improve health of living resources in the LIS environment; additional and leveraged funding brought to restoration activities and increased acreage/miles improved to benefit LIS water quality and biological health; public outreach about HRI and accomplishments; implementation of habitat restoration projects and effective communication to the public.	
			NYSDEC-NEIWPC	\$44,629		
		16) NOAA National Marine Fisheries Service Ecologist Liaison (x2 years) [2012 continuing under prior year carryover funding]	NOAA	[\$117,426]		Restoration of the Sound's fisheries habitat to maintain healthy and viable populations of fish in LIS; implementation of the LISS CCMP to protect and restore LIS; prevention and control of aquatic invasive species in LIS; protection and enhancement of the Sound's ecological and fisheries resources; improved understanding of food webs and implications for fisheries management programs.
		17) USFWS Wildlife Biologist Liaison support to the LISS. (x2 years) [2012 continuing under prior year carryover funding]	USFWS	[\$120,000]		Restoration of the Sound's coastal habitat to maintain healthy and viable populations of fish and wildlife in LIS; implementation of the LISS CCMP to protect and restore LIS; prevention and control of aquatic invasive species in LIS; protection and enhancement of the Sound's ecological and recreational resources.
	CCMP Technical Support	18) 2012 CCMP Enhancements Program: a) NPS/Stormwater Tracking	NEIWPC	\$44,619	Improved environmental conditions in LIS (reduced hypoxia); reduction of NPS and stormwater loading of nitrogen to Long Island Sound.	

b) Sentinel Monitoring Data Synthesis	NEIWPCC	\$73,250	Active management and enhanced response to priority climate change impacts in LIS; serve as a resource and model to other NEPs for climate change monitoring and adaptation, leading to increased regional coordination; improved predictive ability of changing LIS ecosystems leading to more effective protection and management
c) Sentinel Monitoring Implementation	NEIWPCC	\$150,000	Improved predictive ability of changing LIS ecosystems leading to more effective protection and management
d) Sustainable Yard Care Pilot Strategy	NY SEA	\$35,000	Stimulate human behavior change to improve water quality.
e) Habitat Database Improvements	NEIWPCC	\$54,427	Improved presentation and access to LIS habitat data by the public and other user groups.
f) Marsh Migration Modeling	NEIWPCC	\$44,500	Increased habitat quality in LIS through improved understanding of marsh migration; better data to guide long term management decisions including habitat restoration, stewardship activities and NPS.
g) Ecological Value Inventory Documentation	NEIWPCC	\$12,810	More complete data on the Important Ecological Areas; data will be used to increase utility of the GIS Stewardship Site Selection Strategy Tool; help LISS partners, collaborators and workgroups better understand the relative importance of the listed sites and identify those that require further field investigation in terms of designation (exemplary or outstanding).
h) Water Quality Monitoring: <ul style="list-style-type: none"> - mapping & data products - DO sensors (2) - Nutrient Sensor Deployment - O&M of CT River Sensors - Buoy with surface/bottom DO sensors 	NERACOOS	[\$310,973] \$47,680 \$44,265 \$75,612 \$35,000 \$108,416	Assessment of water quality management program impact; interpretation of stream flow variability on salinity in critical coastal habitats; better assessment of trends in managed nutrients; Improved assessment of water quality models.
i) NY Coastal Erosion Hazard Mapping	NYSDEC	\$170,000	Demonstration of climate change expression in LIS; baseline information for future changes; preparation of LIS as a climate-ready estuary; potential establishment of long term, continuous monitoring stations and data sets; Protected water quality, alleviation of detrimental water quality effects of SLR on these areas and infrastructure; Increased habitat for fish, wildlife, marine resources, and public enjoyment; improved water quality.
j) CT Green Infrastructure Symposium	CTDEEP	\$45,000	Decreased NPS pollution leading to increased LIS water quality; increased awareness of GI implementation; precursor to project that will result in decreased NPS pollution and improved LIS water quality
k) Nitrogen BMP Installation/Monitoring	UConn CLEAR	\$66,603	Reduction of N loading from ~79,000 gallons of urban runoff, annually; scientific support for use of innovative stormwater practice; lay groundwork for widespread adoption of practice, reducing N loads to LIS.
l) LIS Economic Data Literature Search	NEIWPCC	\$67,615	Economic valuation of LIS resources to support the CCMP and TMDL revisions.

	LIS Futures Fund Large Grant Program	19) LIS Futures Fund FY2011 program element breakout, \$1,764,523: - Water Quality, 30%; - Stewardship & Habitat, 37%; - PI&E –19%; - Species, 7%; - Tracking & Evaluation, 7%	NFWF	\$1,250,000	Increase in the number and type of project proposals to address problems identified by the LISS <i>CCMP</i> . Increase community support for and interest in the projects as a means to encourage public engagement to solve the problems identified in the LISS <i>CCMP</i> . Increase public support for additional resources to address the problems identified in the LISS <i>CCMP</i> . Support both a greater number of projects and larger, more complex projects that address the problems identified in LISS <i>CCMP</i> . Increase public understanding of accomplishments and challenges faced in LIS and addressed by various LISS initiatives.
	Stewardship Initiative Support	20) LIS Stewardship Area acquisition/management to support 33 stewardship areas in New York and Connecticut, climate change priority for marsh migration potential.	NYSDEC CTDEEP	\$0 \$0	Protection of habitats of ecological, recreational, and public access value; protection of endangered, threatened, and rare species of plant and animal habitats; demonstration of effective public and private partnerships in habitat conservation.
	Regulatory and Compliance Assistance	21) NY TMDL Implementation Support [2010 support continuing through FY2013]	NYSDEC	[\$228,000]	Review, assess and revise nitrogen TMDL using the latest data and information available; improve water quality; protected marine resources; enhanced fishery; more abundant and variety of species.
		22) LIS TMDL Support	NEIWPC	\$16,949	A more cooperative and publicly understood process in the upland LIS watershed states for achieving reduced nitrogen loads delivered to the Sound, reduced hypoxia, and attainment of state water quality standards through TMDL adoption in upland states.
IMPLEMENTATION SUPPORT SUBTOTAL:				\$ 2,467,007	48%
TOTAL:				\$4,551,200	

**LONG ISLAND SOUND STUDY
NATIONAL ESTUARY PROGRAM WORK PLAN
LIST OF FY2012 LISS-FUNDED STAFF**

ORGANIZATION/NAME	<u>LISS TITLE</u>	<u>DESCRIPTION OF RESPONSIBILITIES/ACTIVITIES</u>
<u>EPA LISO</u>		
Edna Nolfi	Administrative Assistant	Provides overall office administrative support.
<u>CTDEEP</u>		
Mark Parker	Environmental Analyst 3	Coordinates overall LIS program in CT.
Kelly Streich	Environmental Analyst 3	Provides technical support. (50%)
Katie Clayton-O'Brien	Environmental Analyst 2	Water quality sampling/analysis.
Matthew Lyman	Environmental Analyst 2	Water quality sampling/analysis.
Peter Simpson	Boat Captain	RV John Dempsey CTDEP WQ Monitoring
Christine Olsen	Environmental Analyst 2	Water quality sampling/analysis. (80%)
Harry Yamalis	Environmental Analyst 2	Develops/implements habitat restoration plans/projects in CT.
<u>NYSDEC</u>		
Sarah Deonarine	LIS Coordinator	Coordinates overall LIS program in New York
<u>NY Sea Grant</u>		
Larissa Graham	NY Outreach Coordinator	Develops and implements communications plans and public information/education program in NY.
Karen Palmeri	Administrative Support	Assists in supporting the Extension Specialist in conducting the NY PI&E program. (33%)
<u>NEIWPC</u>		
Erin Jacobs, P.E.	Environmental Analyst II	Overall coordination of LIS program within NEIWPC. (25%)
Robert Burg	LISS Outreach Coordinator	Coordinates the overall LIS communications program for the LISS.
Susy King	Director of Water Quality Programs	Coordinates TMDL support with upper basin states. (15%)
Kelly Hines	NY Habitat Restoration Coordinator	Coordinates development/implementation of habitat restoration plans and projects in the LIS watershed.
<u>CTSEA</u>		
Judy Preston	CT Outreach Coordinator	Provides PI&E support and coordination in CT (70%)
<u>NOAA [FY10-11 Funded]</u>		
Dr. Jason Krumholz	Ecologist	Supports LIS water quality and fisheries data.
<u>USFWS [FY10-11 Funded]</u>		
Georgia Basso	Fish & Wildlife Biologist	Supports LIS habitat restoration program.

Long Island Sound Study
2012 Budget Summary by Organization
April 19, 2012

Organization & Base Program Activity	2012	2012	2012
	Final	Required Match	Actual Match Provided
1. EPA Long Island Sound Office	\$88,767	\$0	\$0
a. Office administration and operating expenses	\$11,600	\$0	
b. CCMP Implementation Tracking [new 2010]	\$30,000	\$0	
c. Administrative Support (NCOA)	\$47,167	\$0	
2. CT Dept. of Environmental Protection	\$1,164,046	\$1,164,046	\$1,164,046
a. CT State Coordination	\$159,362	\$159,362	
b. CT LISS Habitat restoration coordination	\$80,632	\$80,632	
c. LIS Water Quality Monitoring Program	\$779,052	\$779,052	
d. CT GI Symposium	\$45,000	\$45,000	
e. LIS Stewardship	\$0	\$0	
f. LIS Sentinel Monitoring	\$100,000	\$100,000	
3. NYS Dept. of Environmental Conservation	\$170,000	\$259,129	\$259,129
a. NYS LIS Coordination & Reporting	\$0	\$0	
b. NY Coastal Zone Hazard Mapping	\$170,000	\$170,000	\$170,000
c. LIS Stewardship	\$0	\$0	
d. Marsh Migration Modeling (NY) [NEIWPC]C	\$0	\$44,500	\$44,500
e. Habitat Restoration Coordination [NEIWPC]C	\$0	\$44,629	\$44,629
4. CT Sea Grant	\$109,564	\$5,767	\$5,767
a. LIS PI&E Coordination	\$74,515	\$3,922	
b. K-12 Mentor Teacher Program Support	\$35,049	\$1,845	
5. NY Sea Grant Cornell U.	\$142,074	\$7,478	\$7,478
a. Public Outreach Coordination	\$135,134	\$7,112	
b. NY Mentor Teacher Program	\$6,940	\$365	
6. NY Sea Grant Cornell U.	\$35,000	\$1,842	\$1,842
a. Sustainable Yard Care Program	\$35,000	\$1,842	\$1,842
7. NEIWPC	\$276,502	\$76,078	\$0
a. Task 1 Outreach/Education Support/SH-PP	\$147,501	\$7,763	
b. Task 2 Meeting/Travel Coordination Support	\$64,423	\$64,423	
c. Task 3 NYSDEC Habitat Coordinator	\$44,629	-\$44,629	
d. Task 4 LIS TMDL/Upper Basin Outreach Support	\$16,949	\$892	
e. Task 5 CCMP Revision Support	\$3,000	\$3,000	
8. CT Sea Grant College Program	\$212,500	\$212,500	\$0
a. Connecticut Sea Grant Research Support	\$212,500	\$212,500	
b. STAC Support (1 year)	\$0	\$0	
9. New York SUNY Research Foundation	\$212,500	\$212,500	\$0
a. New York Sea Grant Research Support	\$212,500	\$212,500	
b. STAC Support (1 year)	\$0	\$0	
10. Enhancement Grants Program (NEIWPC)	\$447,221	\$402,721	\$0
a. NPS/Stormwater Tracking	\$44,619	\$44,619	
b. Sentinel Data Synthesis	\$73,250	\$73,250	
c. Habitat Data Improvements	\$54,427	\$54,427	
d. Marsh Migration Modeling (NY)	\$44,500	-\$44,500	
e. Ecological Inventory Documentation	\$12,810	\$12,810	
f. LIS Sentinel Implementation	\$150,000	\$150,000	
g. LIS Economic Data	\$67,615	\$67,615	
11. National Fish & Wildlife Foundation	\$1,315,450	\$997,655	\$997,655
a. LIS Futures Fund Large Grants	\$1,250,000	\$994,211	
b. LIS Futures Fund Small Grants	\$65,450	\$3,445	
12. UConn CLEAR	\$66,603	\$66,603	\$0
a. NPS BMP Demonstration Project	\$66,603	\$66,603	
13. NERACOOS	\$310,973	\$310,973	\$0
a. WQ Monitoring Enhancements	\$310,973	\$310,973	
Total:	\$4,551,200	\$3,717,292	\$2,435,916
Funds Available:	\$4,551,200		\$1,281,375
Fiduciary Reserve:	\$0	Overmatch Need:	CTDEEP providing overmatch

LONG ISLAND SOUND STUDY

Summary of FY2012 Assistance Awards by Organization			
ORGANIZATION	EPA Assistance Award #	FY2012 Budget	FY2012 Required Match
Final LIS Allocation		\$4,551,200	
BASE IMPLEMENTATION PROGRAM:			
EPA LISO Office Tracking contract	Plus Reserve	\$30,000	\$0
a. Operations/Expenses		\$11,600	\$0
NCOA/EPA Administrative Support [MT]	Q83435101	\$47,167	\$0
NYSDEC CZHM DOW NEW [JS]	LI-NEW	\$170,000	\$259,129
NYSEA PI&E [JS]	LI97241608	\$142,074	\$7,478
NYSEA CSBM Pilot Strategy NEW [JS]	LI-NEW	\$35,000	\$1,842
NYSEA Research 2011-2014 [JS]	LI97206912	\$212,500	\$212,500
NFWF 2012 NEW [JS]	LI-NEW	\$1,315,450	\$997,655
CTDEEP 2012 CCMP Implementation NEW [LON]	LI-NEW	\$1,164,046	\$1,164,046
NEIWPC Implementation NEW [LON]	LI-NEW	\$276,502	\$76,078
NEIWPC Enhancements [LON]	LI96144501	\$447,221	\$402,721
CTSEA PI&E & Mentor Teachers [JS]	LI96113801	\$109,564	\$5,767
CTSEA Research 2011-2014 [JS]	LI96144301	\$212,500	\$212,500
NERACOOS NEW [JS]	LI-NEW	\$310,973	\$310,973
UConn CLEAR NPS BMP NEW [LON]	LI-NEW	\$66,603	\$66,603
TOTALS:			
BALANCE SUBTOTALS:		\$4,551,200	\$3,717,291
Region 1, Green; Region 2 Blue; IAs, HQ = Yellow; Amend= Pink; Expires = Red		Overmatch =	\$1,281,375

Long Island Sound Futures Fund Projects 2011					
NFWF ID	Project Title	Grantee Organization	Project Award Amount	Match	State
2011-0054-001	Improving Equine Operation Nutrient Management (CT)	Connecticut River Coastal Conservation District	\$150,000	\$75,000	CT
2011-0054-002	Long Beach West Invasive Species Control Project	Town of Stratford, Connecticut	\$56,100	\$9,486	CT
2011-0054-003	SPONGE PARK(TM) Street Swale Infrastructure Initiative	Regional Plan Association, Inc.	\$59,935	\$176,110	NY
2011-0054-004	Coastal Classroom on the East River	City Parks Foundation	\$10,000	\$10,000	NY
2011-0054-005	Norwalk Harbor Interpretive Signage Project	City of Norwalk Harbor Management Commission	\$9,480	\$2,400	CT
2011-0054-006	Celebration of Our Woods and Streams: Links to LIS	The Darien Land Trust	\$3,000	\$2,620	CT
2011-0054-007	Audubon Alliance for Coastal Waterbird Stewardship	Audubon Connecticut	\$117,708	\$82,305	CT
2011-0054-008	Mill River-Beekman Creek Restoration Project: Phase One	Friends of the Bay, Inc.	\$40,000	\$43,260	NY
2011-0054-009	Creature Encounters	The Maritime Aquarium at Norwalk, Inc.	\$34,890	\$37,021	CT
2011-0054-011	Long Cove Tidal Marsh Restoration	Town of Guilford	\$49,250	\$49,518	CT
2011-0054-012	SoundWaters Public Engagement Sails Connecting LIS	SoundWaters	\$34,486	\$34,767	CT
2011-0054-013	Water Quality Project Used to Implement Pollution Solutions	Clean Up Stonington Harbors, Inc.	\$24,481	\$19,400	CT

2011-0054-014	Restoration of a Coastal Shoreline at Stratford Point, CT	Sacred Heart University	\$54,854	\$9,486	CT
2011-0054-015	Save the Sound Coastal Cleanup Program	The Connecticut Fund for the Environment, Inc.	\$10,000	\$10,000	CT
2011-0054-016	Hempstead Harbor 2011 Water Quality Monitoring Program	Incorporated Village of Sea Cliff, New York	\$40,000	\$69,190	NY
2011-0054-017	Byram River Eel Passage and Volunteer Eel Restoration	Town of Greenwich, Connecticut	\$3,498	\$1,500	CT
2011-0054-018	The Scuba Sports Club beach and sound clean up	The Scuba Sports Club	\$5,000	\$0	NY
2011-0054-019	Crab Meadow Watershed Hydrology Study & Stewardship Plan	Town of Huntington, New York	\$58,000	\$27,000	NY
2011-0054-020	Restoration of Forests at Audubon's First Bird Sanctuary	Theodore Roosevelt Sanctuary and Audubon Center	\$34,977	\$13,120	NY
2011-0054-021	FOB Water Quality Monitoring Report	Friends of the Bay, Inc.	\$6,440	\$79,965	NY
2011-0054-022	An Online Guide to Responding to Impervious Cover Regulation	University of Connecticut	\$60,000	\$29,537	CT
2011-0054-023	Pequonnock River Apron Fish Passage Project	The Connecticut Fund for the Environment, Inc.	\$59,172	\$59,172	CT
2011-0054-024	Riparian Corridors and the Pequonnock River Watershed	University of Connecticut	\$34,999	\$4,748	CT
2011-0054-025	Estuary Health Program	Sea Research Foundation, Inc.	\$7,166	\$6,678	CT
2011-0054-026	Sound Experiences: From Ship-to-Shore IV	Cornell University	\$35,000	\$17,225	NY

2011-0054-027	Adopt-a-Trout: Promoting Community-Based Stewardship	Hofstra University	\$34,978	\$45,598	NY
2011-0054-028	BYOB- Bring Your Own Bag	Citizens Campaign Fund for the Environment	\$25,000	\$30,000	NY
2011-0054-029	Mamaroneck River Corridor Buffer Restoration	Westchester County Department of Planning	\$41,000	\$4,500	NY
2011-0054-030	Festival of Little Neck Bay and Long Island Sound	Alley Pond Environmental Center, Inc.	\$5,000	\$5,000	NY
2011-0054-031	Fish Passage Improvement on Spoonville Dam on the Farmington River	Farmington River Watershed Association	\$60,000	\$220,000	CT
2011-0054-032	Great Egret Foraging Science Education Project	Rocking the Boat, Inc.	\$20,000	\$10,000	NY
2011-0054-033	Raising awareness of rising sea-levels in coastal marshes	Yale University	\$35,000	\$39,447	CT
2011-0054-034	Coastal Grasslands Restoration at Caumsett State Park (NY)	New York State Department of Parks, Recreation, and Historic Preservation	\$39,466	\$40,030	NY
2011-0054-035	Poquetanuck Cove Action Plan, Preston and Ledyard, CT	Eastern Connecticut Conservation District	\$60,000	\$53,000	CT
2011-0054-036	Engaging Sweet Corn Farmers to Reduce Nitrogen in LI Sound	American Farmland Trust	\$150,000	\$220,000	NY
2011-0054-037	Removing Ghost Fishing Gear to Restore the Sound for Long Island Fisheries (NY)	Cornell Cooperative Extension Association of Suffolk County	\$98,556	\$71,712	NY

2011-0054-038	Diving Deeper: Children's Sound Programs at Common Ground	New Haven Ecology Project, Inc. / Common Ground	\$15,024	\$14,186	CT
2011-0054-039	Beardsley Zoo's "Trout in the Classroom" Project	Connecticut Zoological Society, Inc.	\$7,000	\$14,000	CT
2011-0111-001	New York Botanical Garden Lower Portage Trail Restoration	New York Botanical Garden	\$100,000	\$750,000	NY

\$1,689,460 \$2,386,981

Long Island Sound Study
Travel Documentation for FY2011 NEP Work Plan
 April 2011-March 2012

Meeting Date	Meeting Title	Meeting Location	Person or Committee	Cost	Total Cost Per Meeting
5/25/2011	CAC budget meeting	Bridgeport, CT	CAC	\$26.00	\$26.00
6/9/2011	CAC	Stamford, CT	CAC	\$87.60	
6/9/2011	CAC	Stamford, CT	CAC	\$359.72	
6/9/2011	CAC	Stamford, CT	CAC	\$73.95	
6/9/2011	CAC	Stamford, CT	CAC	\$73.40	
6/9/2011	CAC	Stamford, CT	CAC	\$136.30	
6/9/2011	CAC	Stamford, CT	CAC	\$77.40	\$808.37
9/8/2011	CAC	New York City, NY	CAC	\$32.40	
9/8/2011	CAC	New York City, NY	CAC	\$411.95	
9/8/2011	CAC	New York City, NY	CAC	\$64.29	
9/8/2011	CAC	New York City, NY	CAC	\$29.33	
9/8/2011	CAC	New York City, NY	CAC	\$89.74	
9/8/2011	CAC	New York City, NY	CAC	\$72.10	
9/8/2011	CAC	New York City, NY	CAC	\$21.75	
9/8/2011	CAC	New York City, NY	CAC	\$37.00	\$758.56
10/20/2011	MC	Bridgeport, CT	CAC	\$6.00	\$6.00
12/8/2011	CAC	Stamford, CT	CAC	\$379.82	
12/8/2011	CAC	Stamford, CT	CAC	\$81.03	
12/8/2011	CAC	Stamford, CT	CAC	\$11.26	
12/8/2011	CAC	Stamford, CT	CAC	\$55.50	
12/8/2011	CAC	Stamford, CT	CAC	\$58.99	\$586.60
3/8/2012	CAC	New York City, NY	CAC	\$58.91	
3/8/2012	CAC	New York City, NY	CAC	\$23.00	
3/8/2012	CAC	New York City, NY	CAC	\$61.54	
3/8/2012	CAC	New York City, NY	CAC	\$100.45	
3/8/2012	CAC	New York City, NY	CAC	\$23.00	
3/8/2012	CAC	New York City, NY	CAC	\$15.50	
3/8/2012	CAC	New York City, NY	CAC	\$92.00	
3/8/2012	CAC	New York City, NY	CAC	\$30.74	
3/8/2012	CAC	New York City, NY	CAC	\$37.74	\$442.88

\$2,628.41

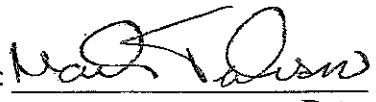


U.S. ENVIRONMENTAL PROTECTION AGENCY
Region I
Boston, Massachusetts

OFFICE OF ECOSYSTEM PROTECTION

Subject: Approval of Long Island Sound National Estuary Program 2012 Work Plan

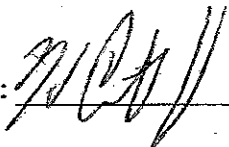
From: Mark A. Tedesco, Director
EPA Long Island Sound Office

Approve:  5/22/12
Date

Thru: Stephen Perkins, Director
Office of Ecosystem Protection

Approve:  5/24/12
Date

To: H. Curtis Spalding, Regional Administrator
EPA Region 1

Approve:  5/24/12
Date

Attached for your approval under EPA regulation 40CFR35 Subpart P, Financial Assistance for the National Estuary Program (NEP) is the summary Work Plan for Long Island Sound for FY2012 funding for work to take place in FY2013. The Work Plan was approved by the Management Conference partners on April 19, 2012 and meets the requirements of NEP funding guidance.

Under this summary Work Plan, EPA will make or amend twelve Assistance Agreements with seven state, local and regional partners totaling \$4,551,200 with an additional required aggregate match of \$3,717,292 from the partners. EPA Regions 1 and 2 will make these awards and obligate funding on or before September 30, 2012. Authority to make these awards has been delegated to the Directors, OEP and DEPP under EPA Delegations 2-72 and 2-94.

By our signatures above, we recommend that you approve the Work Plan accordingly. Please do not hesitate to contact us if you have any questions.

Attachment