Meeting Materials • September 22, 2011 • Boston, MA

Directions to meeting location: www.epa.gov/NE/directions/index.html

9:30 AM 	**Welcome** *Ted Diers, NH and Betsy Nicholson, NOAA* **Passing of the Rock** Bruce Carlisle, MA and Bob LaBelle, DOI-BOEMRE accept 2011-2012 chairmanship.
9:40 AM	**Consent Agenda** *Bruce Carlisle, MA – State Chair* Consent agenda items are intended to provide Council members with updates on NROC activities (information only). The Chair will summarize each item and ask Council members to accept each item 'as is' or remove an item for further discussion. *Please review items before the meeting.* ▪ **Approval:** 2011-2012 NROC Roster (Executive Committee) ▪ **Partner Update:** Sea Grant Consortium (Sylvain DeGuise, CT Sea Grant) ▪ **Partner Update:** Massachusetts Ocean Partnership (Dave Kellam, MOP) ▪ **Follow up:** Corporate Wetlands Restoration Partnership Support to the National Ocean Council (Bill Hubbard) ▪ **Follow up:** Identification of OCS Renewable Energy Space-Use Conflicts and Analysis of Potential Mitigation Measures (Jack Wiggin, Urban Harbors Institute) ▪ **Interest:** 2011 OSV Bold Surveys in New England (Mel Cote, EPA) ▪ **Interest:** 2011 Climate Ready Estuary Projects in New England (Mel Cote, EPA) ▪ **Interest:** LiDAR Acquisition (Dan Walters, USGS) ▪ **Interest:** New England Climate activities (Regina Lyons, EPA) ***Meeting Materials on page 3.***
10:15 AM	**CMSP Updates** *Grover Fugate, RI and Betsy Nicholson, NOAA* ▪ Update on Moore and NOAA grants (John Weber, NROC – CMSP Director) ▪ GCC meeting (Kathleen Leyden, Maine) ▪ RPBs and tribal engagement (Betsy Nicholson, NOAA) ▪ CMSP regional workshop/NROC retreat (Betsy Nicholson, NOAA) ▪ Northeast Ocean Data Portal: Webinar Announcement ***Meeting Materials on page 13.***
11:30	**Partner Feedback** *Moderated by Bruce Carlisle, MA and Bob LaBelle, BOEMRE*
12:00 PM	**Lunch** *Please feel free to bring your own lunch or grab lunch from the EPA cafeteria.*
1:00 PM	**Presentation: Ocean Use Public Opinion Polling Results** *Stacia Tipton, Edge Research*
1:45 PM	**Results from Regional Coastal Conservation Strategy Project** *Adrianne Harrison, NOAA* ▪ North Atlantic Landscape Conservation Cooperative (Andrew Milliken, USFWS) ▪ Mapping pilot (Adrianne Harrison, NOAA) ***Meeting Materials on page 15.***

2:30 PM	**NROC Activities** ▪ Hazards Committee: Update on NOAA CSI-Coasts Award to NROC/GOMC (Julia Knisel, MA) ▪ Hazards Committee: Coastal Resilience Municipal Technical Assistance Grants program (Adrianne Harrison, NOAA) ▪ Ecosystem Committee: New Ocean and Coastal Ecosystem Health Committee co-chair (Brian Thompson, CT and Mel Cote, EPA) ▪ Ecosystem Committee: Seafloor and Habitat Mapping Characterization Update (Bruce Carlisle, MA) ▪ Ecosystem Committee: Ecosystem Indicators Workshop (Regina Lyons, EPA) ***Meeting Materials on page 16.***
3:45 PM	**Closing Business (Executive Session)** *Bruce Carlisle, Massachusetts – Chair* ▪ Review and confirm decisions and recommendations from afternoon sessions. ▪ Future meeting dates: January 26, May 31, and October 25, 2012
4:00 PM	**Adjourn**

Consent Agenda:

1. 2011-2012 NROC Roster. ***Item for approval.***

Maine
Kathleen Leyden
Maine Coastal Program

New Hampshire
Ted Diers
New Hampshire Dept of Environmental Services
Steve Couture
New Hampshire Coastal Program

Massachusetts
Bruce Carlisle**
Massachusetts Office of Coastal Zone Management

Rhode Island
Janet Coit
Rhode Island Department of Environmental Management
Ames Colt *(Alternate)*
Rhode Island Bays, Rivers, and Watersheds Coordination Team
Grover Fugate
Rhode Island Coastal Resources Management Council

Connecticut
Brian Thompson
Long Island Sound Program
David Blatt *(Alternate)*
Long Island Sound Program

Department of Interior
Bob LaBelle**
Bureau of Ocean Energy Management, Regulation and Enforcement
Michele Desautels *(Alternate)*
Bureau of Ocean Energy Management, Regulation and Enforcement
Carol Pollio
US Fish and Wildlife Service
Rick Harris
National Park Service
Charles Roman *(Alternate)*
National Park Service
Dave Russ
US Geological Survey
Susan Russell Robinson *(Alternate)*
US Geological Survey

National Oceanic and Atmospheric Administration
Betsy Nicholson
NOAA Coastal Services Center

US Environmental Protection Agency
Mel Coté
Ocean and Coastal Protection Unit, Region One
Regina Lyons *(Alternate)*
Ocean and Coastal Protection Unit, Region One

US Army Corps of Engineers
William Hubbard
US Army Corps of Engineers

US Department of Agriculture
Christine Clarke
Natural Resources Conservation Service, Massachusetts

Department of Defense/Homeland Security
Ron Beck
US Coast Guard Region 1

2. Partner Update: Northeast Sea Grant Consortium (Sylvain DeGuise, CT Sea Grant)

The Northeast Sea Grant Consortium (NESGC) represents the 7 state Sea Grant programs and their host universities in the Northeast from Maine to New York, and is charged with developing strategic partnerships and projects at the regional scale. The NESGC serves as the umbrella to oversee regional projects such as the Gulf of Maine and Greater New York Bight regional planning grants, plus to coordinate regional Sea Grant thematic priorities, such as in the social sciences and climate change, for example, and acts with regional partners to implements such plans and priorities.

The NESGC signed a MOU with NROC to codify collaborations and define the mutual expectations between the parties. Specifically, the NESGC and NROC will (1) collaborate in defining research priorities, (2) serve on each other committees and boards when appropriate, (3) collaborate on joint projects when relevant, (4) report jointly on collaborations, and (5) work cooperatively on funding requests and administration of funds.

In 2010-2011 the NESGC planned and carried out a regional research initiative in the social sciences at the interface of natural sciences and relevant to coastal and ocean management in the Gulf of Maine and the Greater New York Bight. The review panel included one member of NROC. The panel reviewed 31 pre-proposals and 10 full proposals. It is expected that 2-4 projects will be funded, pending availability of funds (there is still uncertainty on the 2012 federal budget).

The NESGC is now appointing an Advisory Board to advise the Consortium on its activities and develop strategic partnerships and collaborations to fulfill its mission. The Advisory Board will be constituted with senior personnel from strategic partner groups from federal and state agencies, regional organizations, universities, industry, foundations, and NGOs. NROC will be represented on the Advisory Board. It is expected that the Advisory Board will help create innovative and strategic alliances and funding initiatives that could lead to joint opportunities for research and implementation. The Consortium will meet with the Advisory Board annually, typically in late Fall. This year's meeting will take place on November 17 in Newport RI, immediately following the biennial Northeast Sea Grant regional meeting.

The NROC and the NESGC have engaged in preliminary discussions on partnerships to implement regional CMSP, specifically on outreach and engagement.

The NESGC has committed to annual meetings and a rotating leadership schedule (see Table below). Leadership will change annually on January 1. In 2012, the Chair-elect Barry Costa-Pierce (Rhode Island Sea Grant) will step in as Chair, while Judith McDowell (WHOI Sea Grant) will step in as Chair-elect.

	Chair	Chair-elect	Sea Grant week	NE Regional meeting
2010	NY	CT	x	NY
2011	CT	RI		RI
2012	RI	WHOI	x	
2013	WHOI	MIT		MIT
2014	MIT	NH	x	
2015	NH	ME		ME
2016	ME	NY	x	

3. Partner Update: Massachusetts Ocean Partnership (Dave Kellam, MOP)

Continued Funding to Advance Coastal and Marine Spatial Planning
Currently MOP senior leadership is working out the details of another grant from the Gordon and Betty Moore Foundation to advance coastal and marine spatial planning. This grant differs significantly in two ways from the original funding that supported the completion of the Mass Ocean Management plan. First the duration is two, rather than four years. Second, the scope of work is broader, though funding levels are reduced compared to the original grant - underscoring the need to diversify funding for our CMSP work. It includes continued support for Massachusetts efforts, but it also reflects MOP's growing role beyond Massachusetts by enabling work in the Northeast and other regions to advance the entire field of CMSP. In anticipation of this funding, we have begun some new initiatives that better position MOP to leverage our experience toward enhancing the practice of CMSP more broadly.

Name Change
MOP staff and board have agreed that the current name of the organization would likely impair our ability to collaborative effectively with agencies and organizations outside of Massachusetts. Therefore, over the last six weeks we have undertaken a process to select a new name for the organization that will enhance our mission and expanded scope. After intensive staff review and input from board members and CMSP colleagues, we are close to selecting our new name. Beginning in October we plan to launch a brief campaign to educate people about the name change.

Recreational Boater Survey
This summer we completed the technical report and project summary of the 2010 Massachusetts Recreational Boater Survey. The results were well received in the popular press as the boating season began and by our partners in the marine trades field who noted that the information helped them better understand their clientele and the economic impact of coastal boating activity in Massachusetts. Mass CZM will include the route data collected in the study in the Mass Ocean Plan update. Given the broad appeal of this work and the value to CMSP, NROC leaders have expressed interest in replicating the study on a regional scale. Accordingly, MOP is exploring the possibility of applying this research methodology to the Northeast Region, which will create more robust data on interstate recreational boating activity.

4. Follow up: Identification of OCS Renewable Energy Space-Use Conflicts and Analysis of Potential Mitigation Measures (Jack Wiggin, Urban Harbors Institute)

Draft report was submitted to BOEMRE on August 15, 2011. The report compiles the literature review, a description of the geodatabase created, and the results of our ethnographic research (on the Atlantic and Pacific coasts). BOEMRE is in the process of reviewing the draft and we expect to receive comments within the month.

5. Follow up: Corporate Wetlands Restoration Partnership Support to the National Ocean Council (Bill Hubbard)

The Corporate Wetlands Restoration Partnership was initiated in 2000 to bring corporate donations to ecological restoration projects. CWRP began in Massachusetts and was developed nationally and internationally through the Coastal America partnership. As the partnership is with corporate and governmental entities, the CWRP expressed interest in supporting the evolving National Ocean Council structure. The CWRP has donated a series of underwater video camera systems to all of the regional ocean councils/regional planning bodies. The intent of the donation is to assist in Coastal and Marine Spatial Planning and ecosystem restoration.

The Northeast Regional Ocean Council has 2 systems in New England. One camera is located currently in CT and one in NH. The local chapters of the CWRP "gave" them to the NROC states and expressed interest in future collaboration. These cameras have been used in some states for management of derelict fishing gear, fisheries studies and oyster restoration research.

NH, for example, will be working with TNC on a CWRP cost shared project for oyster restoration in Great Bay. The cameras will be used to monitor their oyster restoration sites. Additionally, NH Fish and Game will be using the video camera system to monitor out migrating alosids in the new Winnicut River fish passage structure under the Rt. 33 bridge.

The Strategic Action Plan (#6) for restoration in the National Ocean Council initiative has a section of collaboration with the CWRP for aquatic habitat restoration. The CWRP is proposing a Corporate Ocean Initiative, associated with the regional ocean councils restoration efforts, to attract larger donors to the program.

6. Interest: 2011 OSV Bold Surveys in New England (Mel Cote, EPA)

Eastern Long Island Sound Dredged Material Disposal Site Monitoring Survey, July 16-27
The *OSV Bold* completed an eleven day dredged material disposal site monitoring survey in eastern Long Island Sound on Jul 27. Chief Scientist Jeannie Brochi and the EPA crew collected side scan sonar and Sediment Profile Image System (SPI) data of existing and historical disposal sites to monitor their recovery and also to collect data for a potential future disposal site designation study. This survey complements similar surveys conducted in each of the past three years.

Gulf of Maine Nutrient Criteria Survey, August 4-10
The *OSV Bold* conducted a water quality survey focused on nutrients from Casco Bay to Boston Harbor on Aug 4-10. Chief Scientist Matt Liebman and the EPA crew collected water quality samples at near shore sites along the coast that will be used, along with data collected on previous surveys, to help states develop estuarine and marine numeric nutrient criteria.

Rhode Island Sound Seafloor Mapping Survey, August 15-22
The *OSV Bold* completed a six-day seafloor mapping survey in Rhode Island Sound with Chief Scientist Marcel Belaval and researchers from the University of Rhode Island Graduate School of Oceanography led by Dr. John King. The data will be used to help

develop a three-dimensional view of the seafloor, which will be used to help characterize benthic habitat and identify areas to avoid or utilize for the future development of renewable energy facilities. This seafloor mapping project is a natural progression from previous seafloor mapping work conducted by Rhode Island (with the Bold and other vessels) in support of the state's Ocean Special Area Management Plan (OSAMP) and the new National Ocean Policy objective of developing regional coastal and marine spatial plans.

New Hampshire/Southern Maine Dredged Material Disposal Site Investigations and Seafloor Mapping, August 30 - September 2
The *OSV Bold* conducted a survey of historic and potential dredged material disposal areas off the NH and southern Maine coast starting later this month. Chief Scientist Jeannie Brochi and a multi-agency crew collected data with side scan sonar, SPI, and video camera. Seafloor video also was collected to support the Swept Area Seabed Impact (SASI) model used by state agencies to assess seabed substrate, consistent with the needs being identified by national and regional marine spatial planning efforts. Other partners included: the DMF, NH Fish and Game, and NOAA.

"Open House" Event in Portsmouth, NH, September 4
This Labor Day weekend outreach event focused on work conducted on the *OSV Bold* to support EPA's ocean and coastal protection mission, and efforts by the Piscataqua Region Estuaries Partnership and many local organizations to restore and protect Great Bay and other estuaries in NH and southern Maine. The open house was used to educate the public on progress toward meeting many of the federal and state statutory goals and objectives related to ocean and coastal management (e.g., MPRSA, CWA, NEPA, and National Estuary Program). It also highlighted the July 2010 Executive Order for the Stewardship of the Oceans, Coasts, and Great Lakes that directs federal agencies to form "Regional Planning Bodies" with states and tribes to develop and implement coastal and marine spatial plans for each of the nine planning regions, one of which coincides with the five New England coastal states.

Buzzards Bay and Vineyard Sound Seafloor Mapping Survey, September 9-16
The *OSV Bold* conducted a seafloor mapping survey in Buzzards Bay and around Cape Cod and the Islands with Chief Scientist Marcel Belaval and scientists from Mass CZM and DMF in September. Last year, CZM and DMF used the *Bold* to collect sediment texture and infauna data in Massachusetts Bay to help refine maps for the Massachusetts Ocean Management Plan. There are proposals for several projects (cables, wind energy) that have the potential to affect coastal and ocean activities and resources in this region, which include heavy use by commercial fishing vessels and recreational boats. The state has already used its current base seafloor maps to re-route a proposed electric transmission cable to avoid high-quality, hard-bottom substrate in Buzzards Bay; higher resolution maps will enable even better, more precise environmental decision-making of this kind.

7. Interest: 2011 Climate Ready Estuary Projects in New England (Mel Cote, EPA)

The CRE Program has awarded $70,000 to Region 1 to support the Casco Bay Estuary Partnership ($35,000) and the Piscataqua Region Estuaries Partnership ($35,000) with assessments of climate change vulnerability and adaptation planning. These National Estuary Programs (NEP) will work with the New England Environmental Finance Center (based at University of Southern Maine) to use its COAST model in evaluating the vulnerability of communities in their watersheds to sea-level rise and coastal flooding, focusing on Portland, ME and Seabrook, NH. In collaboration with community representatives, various adaptation scenarios will be developed for consideration in ongoing municipal planning.

CRE also awarded $25,000 to support the Narragansett Bay Estuary Program with the assessment of dam infrastructure vulnerability to climate change. NBEP will work with a variety of regional and local partners to conduct this analysis within the watershed, including coordination with the River Restoration policy development effort to revise state condemnation processes for dams to better manage hazards. The project results will be able to be used as a model for assessing other subwatersheds in the Narragansett Bay watershed, and could then be assembled into a watershed-wide report on dam issues, conditions and policy development and recommendations.

Along with the five projects being implemented by four of the NEPs from previous years, these projects will help us achieve one of the key objectives in our regional climate change strategy, which is getting all six of our NEPs "climate ready" by implementing CRE projects and incorporating lessons learned from their projects and others into their CCMPs.

8. Interest: LiDAR Acquisition

See attached pdf NE LiDAR Processing Update

9. Interest: New England Climate Adaptation Update (Regina Lyons, EPA)

Maine Local Government Highlights:

- The Southern Maine Regional Planning Commission and Maine Geological Survey have partnered to advance adaptation options in coastal zone land use planning with respect to climate change and sea level rise. This project builds coastal resilience in southern Maine communities by educating decision makers and coordinating regional responses to sea level rise and coastal storms and hazards. The project started in 2008 by encouraging four communities (Scarborough, Saco, Biddeford, and Old Orchard Beach) to work on developing adaptation strategies for sea level rise (SLR). Two of these towns already have regional beach management plans – Saco (2000) and Wells Bay (2002); both plans describe planning for sea level rise with different options like jetty modification, dune restoration, and beach nourishment. The project aims to help decision makers improve shoreline zoning decisions in order to reflect sea level rise projections for Maine (two feet by 2100), especially with regard infrastructure siting. The project aims to encourage Maine communities to consider possible policy and regulatory responses to SLR as well as increasingly intense coastal storms and hazards.
- City of Portland – A May 2011 conference on SLR and meetings of the City Council's Energy, Environment, and Sustainability Committee have dramatically increased public support for a city-wide sea level rise planning process. As part of this larger effort, and with assistance from an EPA Climate Ready Estuaries grant through the Casco Bay Estuary Partnership, the New England Environmental Finance Center will use the COAST model that addresses economic and environmental impacts of adaptation response options under user-determined SLR and storm surge scenarios at an individual property parcel level of resolution.
- South Portland - A study is to be undertaken of the Town's vulnerability to sea level rise

  Point of Contact: Pete Slovinsky, ME Geological Survey; Peter.A.Slovinsky@maine.gov/207-287-7173

New Hampshire Coastal Adaptation Workgroup:

- The New Hampshire CAW has completed the development of the NH StormSmart Coasts website (nh.stormsmartcoasts.org) and is developing the content for an interactive blog called the Crow's Nest.
- Chris Keeley, a climate intern for the Clean Air Cool Planet provided the New Hampshire CAW with an assessment of climate related data and created a Data Directory for the StormSmart Coasts site. As part of his continued Master's thesis work, Chris will continue support the development of a strategy for adaptation planning and vulnerability assessments in NH.
- New Hampshire CAW continues to provide workshops for local officials on weather, water, and climate. CAW will host a full day Climate Summit on December 2, 2011 at the Great Bay NERR in Greenland, NH.

  Point of Contact: Steve Miller, Great Bay NERR; Steve.Miller@wildlife.nh.gov/603-778-0015 ext 305

Massachusetts Local Government Highlights:

- Town of Hull's StormSmart Coast pilot project resulted in the development of two innovative tools that can be used as models in other coastal communities (http://www.mass.gov/czm/stormsmart/pilots/hull.htm)
  - Freeboard Incentive: In September 2009, the Hull Board of Selectman unanimously passed the state's first freeboard incentive program to

encourage elevating buildings above currently predicted floodwater levels to account for future storm events and sea level rise. Hull's Conservation Agent worked with CZM and the town's building commissioner to develop the freeboard incentive (PDF, 33 KB), which enables the building department to offer a $500 credit for permit fees to builders and homeowners who elevate new and renovated structures at least two feet above the highest federal or state requirement.

- Storm Surge Visualization Tool: The StormSmart Coasts team also developed a three-dimensional (3D) visualization tool to improve local understanding of the impacts of flood events and sea level rise. Through a contract with Applied Science Associates, photorealistic 3D models were developed for seven Hull facilities that are critical to public safety, health, and welfare. High-resolution topographic data were used to create the 3D models of five flooding scenarios at seven critical facilities.

- The Woods Hole Group, a Massachusetts consulting organization, developed coastal climate change adaptation and engineering alternatives for communities in East Boston, MA. After evaluating the potential flooding impacts of sea level rise and storm events, it developed a number of site-specific alternatives ranging from management approaches (e.g., evacuation, floodproofing of structures, etc.), to soft-engineering options (e.g., beach nourishment, creation of wetlands, etc.), to more significant hard engineering structures (e.g., modular seawalls, revetments, etc.). Conceptual designs and cost estimates were prepared for each case-study. Implementation costs for adaptation strategies were compared to the potential costs incurred by flooding and storm damages over a given time horizon.
- Woods Hole Group also prepared a risk and vulnerability assessment for the redevelopment of Martha's Vineyard Hospital in Oak Bluffs, MA. The assessment involved ranking natural hazards (storm surge and flooding, wind, snowfall, wildfire, coastal erosion, sea-level rise, and earthquakes) in terms of severity of impact, identifying areas at risk from the hazards, and then assessing vulnerability to the risks. We supplemented this analysis by evaluating the vulnerability of critical hospital services and systems to these hazards.
- The Cape Cod Commission, serving all of the towns on Cape Cod, has developed disaster preparedness materials to assist local officials and residents prepare for natural coastal hazard risks, including climate change. In addition, the Commission has incorporated climate change considerations into the siting and design of coastal infrastructure. The primary climate impacts that will affect Cape Cod's coastlines include flooding, sea level rise, erosion, coastal storms, and changes in precipitation.
- A group of experts led a project on *Coastal Flooding and Environmental Justice: Identifying Vulnerable Communities and Feasible Adaptation Strategies for the Boston Metro Area,* several of whom presented at a two day workshop on the vulnerabilities of Boston to sea level rise and flooding. The cities of Boston and Cambridge have also begun comprehensive adaptation planning with support from ICLEI and its Climate Resilient Communities program, and the City of Boston now requires development proposals to consider climate change impacts.

  Point of Contact: Julia Knisel, MA Office of Coastal Zone Management, Julia.knisle@state.ma.us

RI Local Government Highlights:

- The town of North Kingstown, along with RI SeaGrant, has developed an atlas of North Kingston Assets Vulnerable to Sea Level Rise.
- Once the state gets the new LiDAR data, the Rhode Island Statewide Planning Office will be looking at transportation infrastructure throughout the state. They are also applying for grant funding to run the SLAMM model (Sea Level Affecting

Marsh Model) for all coastal communities in the state. http://seagrant.gso.uri.edu/coast/slr_tools.html. RI SeaGrant has developed statewide topographic and bathymetry data as well as a mapping tool and has plans to do sea level rise vulnerability studies similar to North Kingston in the City of Newport and the Town of Narragansett.

- Providence has been promoting green space through zoning and increasing percentage of tree canopy coverage. They are a member of ICLEI and may have more projects in the works.
- Bristol, RI has been doing some very innovative projects on public spaces for stormwater and thinking of future conditions. They are also looking at relocating transportation routes that may be inundated in the future.

Point of Contact: Janet Freedman, Coastal Resources Management Council; jfreedman@crmc.ri.gov

Connecticut:

- The Adaptation Subcommittee of the Connecticut Governor's Steering Committee on Climate Change (GSC) has produced a report on the impacts of climate change on Connecticut agriculture, infrastructure, natural resources and public health (www.ctclimatechange.com). The Subcommittee is currently almost ready to release their second report "Connecticut Preparedness Climate Plan", a report of adaptation strategies to address the impacts identified in the first report. They gathered public comment in February and March for this second report. The report will focus on state initiatives and adaptation examples.
- The state has re-organized to combine environmental and energy within the state (now Department of Energy and Environmental Protection). This re-organization allows for collaboration opportunities with climate change (mitigation, & adaptation) and overall greater collaboration with energy issues.
- Connecticut Department of Environmental Protection (DEP) established a Climate Change Municipal Network and a CT Climate Change Education Committee consisting of state agencies, teacher associations, and non-profits organizations.

Point of Contact: Roslyn Reeps, CT Department of Environmental Protection; Roslyn.Reeps@ct.gov/860-424-3465

New England Tribal Climate Change Adaptation Efforts:
EPA New England is working with the 10 federally recognized tribal nations in New England in conjunction with other federal partners to help them prepare to adapt to the potential effects of climate change. Tribes are concerned about the impacts of climate change on natural and cultural resources that they rely on and have begun to undertake adaptation efforts in response to changing weather patterns that affect traditional livelihoods.

The Penobscot Tribe has observed that tribal wetlands are not frozen as long during winter making wildlife management efforts more difficult. Beaver works and deer wintering management projects have been compressed into shorter timeframes because transportation is limited due to unfrozen ground.

The Wampanoag Tribe of Gay Head notes that their aquaculture program has observed changing larval shellfish behavior and is testing different larval spat capture techniques that are alternatives to traditional methods.

Tribes note that one of the biggest challenges is adaption planning and the potential need to relocate communities often in rural locations. Tribes in New England are working on climate change adaptation plans using tools to help identify environmental

risks to help them adapt. The climate change adaptation plans help identify future infrastructure needs such as wastewater treatment plant location or stormwater culvert size. The plans help tribes allocate their own funds or grant funding to improve or replace vulnerable infrastructure like culverts that need to be replaced and may be vulnerable to climate change effects.

Tribes in New England have joined 565 tribes nationally to speak with a unified voice on natural resource concerns using Tribal Environmental Knowledge (TEK) on the same scale as scientific knowledge in the decision-making process. Additionally, the New England tribes support increased coordination of federal efforts on climate change adaptation and consultation with tribes to reduce the demand for similar information from multiple sources. Tribes note that consultation and assistance should extend beyond natural resource management offices to cultural affairs offices because climate change issues may affect many facets of tribal life.

Point of Contact: Regina Lyons, EPA; lyons.regina@epa.gov

CMSP Updates:

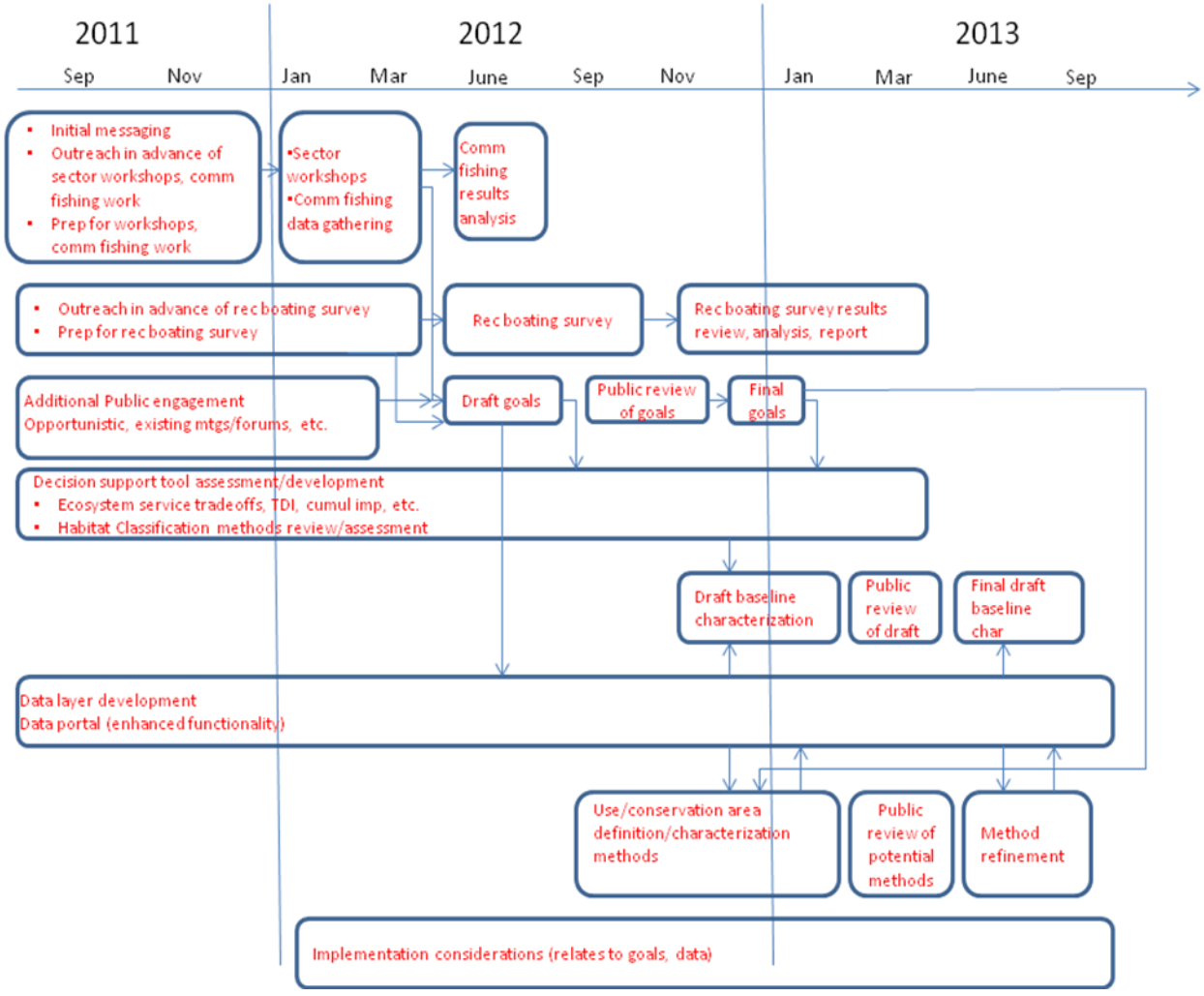
1. CMSP Workplan (John Weber, NROC – CMSP Director)

NROC is actively seeking resources from both public and private sources to fund our CMSP work plan. Major areas of work will fall into the following categories:

- Engage the public and key constituencies in CMS planning,
- Develop data and science needed for regional CMS planning,
- Complete a baseline characterization of the region's resources to inform the planning process,
- Explore and develop appropriate approaches to defining and spatially delineating areas for particular human uses and conservation, and
- Implementation options.

2. Timeline (John Weber, NROC – CMSP Director)

Proposed NROC timeline for ongoing and new work:



3. NE Data Portal Update

We last heard from the Northeast Ocean Data Portal Working Group in June of this year when they publicized the development and subsequent launching of the Northeast Ocean Data Portal (http://northeastoceandata.org/), which includes the Northeast Ocean Data Viewer (http://www.northeastoceanviewer.org/).
The Northeast Ocean Data Viewer is an easy-to-use interactive map of data on human uses, environmental features, and political and administrative boundaries. It enables users to download, visualize, query, map, and analyze data for coastal and marine spatial planning (CMSP) in the Northeast region. The Portal also provides access to other maps and tools, a data catalog, and a listing of policies and standards relevant to CMSP. The Data Portal Working Group, comprised of the Massachusetts Ocean Partnership, NOAA Coastal Services Center, NERACOOS, The Nature Conservancy, NROC, Applied Science Associates and the Gulf of Maine Research Institute, funded and developed the Data Portal.

Since the launch in June, the working group has continued to enhance functionality for the Viewer and to develop regional datasets for the priority themes identified by NROC. In a continuation of this effort, the working group is planning **two webinars for late October**, one for managers and one for technical staff. The webinars are designed to (1) obtain feedback from NROC members on the data and functionality currently provided by the portal; (2) review progress on the development of regional datasets for the priorities identified by NROC; (3) discuss ways in which NROC members and technical staff can participate in the development of the portal; and (4) determine additional functionality and analysis capabilities that would support implementation of regional CMSP. The webinars will be important opportunities for NROC members to guide strategic decisions on key data and functionality enhancements going forward. Certain decisions are fairly technical in nature, so the Northeast Data Portal Working Group is planning on two separate webinars, although all are welcome at both/either. The Working Group will provide additional information and agendas for the webinars in the next week.

Results from Regional Coastal Conservation Strategy Project:

1. Mapping Pilot (Adrianne Harrison, NOAA)

Summary
The New England Coastal Conservation and Climate Change project was initiated by the New England Governors' Conference Commission on Land Conservation in 2009. Representatives from New England's state coastal zone management programs identified a need for a regional strategy for conserving coastal resources in the face of climate change. It was determined that action at the regional scale offered a great opportunity to harmonize conservation goals and activities, to collaborate on high priority conservation projects of regional significance, and to develop consistent and mutually reinforcing climate change adaptation strategies.

The purpose of this project is to demonstrate a methodology and products to support the conservation of high value coastal lands and marine resources most vulnerable to the impacts of climate change.

Step 1: Document regional conservation priorities.
- Find regional priorities through the analysis of region's conservation plans, including CELCP

Step 2: Pilot an approach for a regional mapping exercise.
- Test data availability and quality for regional habitat mapping
- Identify appropriate scales for regional mapping and analysis

Step 3: Develop regional conservation strategies to protect resources in face of climate change.
- Set a strategic conservation initiative that considers habitat vulnerability to climate impacts.
- Share strategies and recommendations with region's conservation organizations

Outcomes to date
- Great Marsh area (MA through ME) identified for mapping pilot
- States identifying resources to support mapping pilot including:
  - Funds for data processing and mapping
  - Existing data for Great Marsh area
  - Recent mapping exercise results from SLAMM models
- NOAA CSC providing technical support in FY12 to apply the marsh migration tool of the Sea Level Rise Impacts Viewer for Great Marsh area.
- Discussions with North Atlantic LCC to engage coastal states through NROC.
- Completed a review of CELCP plans to identify regional coastal conservation priorities.

NROC Activities:

1. Hazards Committee: NOAA CSI-Coasts Award to NROC/GOMC (Julia Knisel, MA CZM)

Project Title: Stimulate innovation and increase the pace of municipal responses to a changing climate in the coastal zone of the Northeast and Bay of Fundy

Institutions: Gulf of Maine Council on the Marine Environment, Northeast Regional Ocean Council, Roger Williams University School of Law, StormSmart Coasts Network, Clean Air-Cool Planet

Principal Investigators: Susan Farady, Was Shaw, Jennifer Andrews

Rationale: In 2010 the Northeast Regional Ocean Council (NROC) and the Gulf of Maine Council on the Marine Environment (GOMC) conducted a climate change needs assessment for the region extending from the Bay of Fundy to Long Island Sound. A top priority was to stimulate innovation and increase the pace of municipal responses to a changing climate. The rational was that since the vast majority of land use decisions in this region are made at the local level, working directly with coastal municipalities on climate change adaptation is the most expedient way to make our coasts more resilient and hazards ready.

Summary of work to be performed: This proposal has three primary tasks – research, hands-on technical assistance and communication/outreach.

1. *Research and document best practices and innovative municipal adaptation approaches in the northeast and elsewhere*. Roger Williams University School of Law will take the lead in identifying, assessing, and compiling municipal best practices. The results will be widely disseminated through the NOAA Coastal Services Center, the Climate Adaptation Knowledge Exchange (CAKE), the CASES Adaptation Library, the StormSmart Coast Network, and the Canadian Regional Adaptation Collaborative.

2. *Provide municipal technical assistance.* The region's five coastal zone management and floodplain/emergency management programs will implement and report on a technical assistance program. The program enables pilot communities to make climate adaptation changes to their policies, programs, and statutes.

- Representatives from each state will be meeting to develop the RFP: Kathleen Leyden, MECP; Cathy Coletti, NH DES; Julia Knisel, MA CZM; Janet Freedman, RI CRMC; Jennifer Pagach, CT DEP.

3. *Develop and disseminate adaptation/resiliency communications.* Clean Air-Cool Planet, in collaboration with the Kresge Foundation, the Sea Grant Program, ICLEI-USA, and the National Estuarine Research Reserve Coastal Training Programs will promote the exchange of communication materials and lessons-learned among municipal teams, government agency staff, scientists and non-profits. This work will also engage climate change professionals in the Canadian provinces of New Brunswick and Nova Scotia through the GOMC.

2. Hazards Committee: Coastal Resilience Municipal Technical Assistance Grants program (Adrianne Harrison, NOAA)

The Gulf of Maine Council on the Marine Environment (GOMC) and the Northeast Regional Ocean Council (NROC) seek proposals from coastal municipalities in New England to advance their efforts to adapt land use, infrastructure, policies, and programs to changing environmental conditions.

GOMC and NROC seek a representative range of technical capacities and coastal hazards challenges that exist in cities and towns across New England's coastal zone. At least one pilot project will be selected from each of the five coastal New England states: Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut. The selected communities will be awarded up to $30,000 each over 18 months and serve as models for other coastal communities looking to adapt to changing conditions.

A total of $150,000 will be awarded to coastal municipalities across New England. This total amount of funding for projects is contingent upon continued support from The Climate Program Office of NOAA. The maximum award per municipality will be $30,000. Awards can range between $10,000 and $30,000.

GOMC and NROC have strongly encouraged applicants to submit a Letter Of Intent before submitting a full proposal. Letters of Intent are due by 5:00 p.m. on September 29, 2011. Full proposals are due by 5:00 p.m. on November 10, 2011. The full RFP can be found at: www.stormsmart.org/groups/new-england.

3. Ecosystem Health Committee: New Ocean and Coastal Ecosystem Health Committee co-chair (Brian Thompson, CT and Mel Coté, EPA)

Brian Thompson will replace Bruce Carlisle as the state chair of the Ocean and Coastal Ecosystem Health Committee. Mel Coté continues to serve as the federal co-chair of the Committee.

4. Ecosystem Health Committee: Northeast Region marine habitat mapping, characterization, and classification update (Bruce Carlisle, MA)

Furthering NROC priority issue area work plan activities, this Spring, NROC began the initial steps of planning for a regional workshop pertaining to seafloor mapping and marine habitat classification. The purpose of the proposed workshop is to build off of previous regional efforts and forums (such as the Gulf of Maine Habitat Classification Workshop: Mapping for Decision Making and the Long Island Sound Seafloor Mapping and Spatial Prioritization Workshops) and further coordination and collaboration in the region on this issue. Resources are currently being sought to support this effort.

In a related update, on September 9, 2011 the five states of the Northeast Regional Ocean Council partnered to submit a proposal to a NOAA/OCRM Federal Funding Opportunity (FFO) : Projects of Special Merit Competition FY2012. Open to NOAA-approved state coastal zone management programs, the competition is to support states to improve their coastal programs in specified areas of national importance—including Ocean and Great Lakes Resources. Under the FFO, coordination among states on a regional project proposal was supported. The proposal from the Northeast seeks to seeking to collaborate through the Northeast Regional Ocean Council (NROC) on a project to improve regional marine habitat characterization and classification by developing a common understanding of the various technologies. applications, and efforts underway (and their objectives, functions, and status); seeking potential agreement as to whether a unified classification framework could be adopted for the region; and addressing foundational elements related to disparate levels of data availability and resolution. Under the project a working group would be formed comprised of appropriate state and federal agencies as well as other key partners to serve as the forum for information exchange, dialogue, and consensus-building on this effort. Decisions on the proposal selected for funding would be anticipated in January 2012.

5. Ecosystem Health Committee: Ecosystem Indicators Community of Practice (Regina Lyons, EPA)

Project Progress to Date:
A small working group (Kim Starbuck, MOP; Verna Delauer, Clark University; David Keeley, on contract with NERACOOS; and Regina Lyons, EPA) has been working on the first “next step” of developing a Community of Practice (COP) for indicator programs. The working group has held several conference calls and has completed research on COPs. Research included structured conversations with existing COPs to identify lessons learned from these COPs--how they operate, how do members utilize and gain benefit from the COP, funding for COP etc.

On August 18th, the small working group held a follow-up call for workshop participants. During this call, participants were briefed on the progress made thus far and were able to provide feedback on the appropriate direction for the group. The goal is for the indicator programs to guide the work being done, so that it meets their needs and will be something useful to their programs. It was decided on that call that the small working group would continue and would further research smaller low cost (or free) options for an online information sharing forum. Various sites and/or models of these types of forums were suggested. The working group will hold their next call in September to divide up the research and further formulate ideas provided by the indicator programs. Another call with indicator programs will be scheduled for the fall to give them an update, solicit further feedback, and invite a few programs to join a Steering Committee.