



## Agenda • May 30, 2013 • Portsmouth, NH

Meeting location is the NH Coastal Program, Pease Field Office, 222 International Drive, Suite 175  
 Directions & map: <http://des.nh.gov/organization/divisions/water/wmb/coastal/categories/contactus.htm>

9:15 AM	<p><b>Arrive &amp; Networking</b></p>
9:30 AM	<p><b>Welcome &amp; Introductions</b>  <i>Bruce Carlisle, MA and Bob LaBelle, DOI-BOEM</i></p>
9:45 AM	<p><b>NROC Updates</b>  <i>Bruce Carlisle, MA – State Chair</i></p> <p>The Chair will facilitate the review of updates submitted by NROC Committees, partners and others.  <i>Please review items before the meeting.</i></p> <p>Content:</p> <ul style="list-style-type: none"> <li>▪ <b>Committee Update:</b> Executive Committee</li> <li>▪ <b>Committee Updates:</b> Coastal Hazards Resilience, Ocean and Coastal Ecosystem Health</li> </ul>
10:30 AM	<p><b>Ocean Planning Update</b>  <i>John Weber, NROC</i></p> <p>An overview and update of current NROC and RPB ocean planning activities will be provided.</p>
11:00 AM	<p><b>Partner and Audience Updates</b></p> <ul style="list-style-type: none"> <li>▪ <b>Partner Update:</b> NERACOOS</li> <li>▪ <b>Partner Update:</b> Sea Grant Consortium</li> <li>▪ <b>Partner Update:</b> Gulf of Maine Council</li> <li>▪ <b>Update:</b> New England Federal Partners</li> <li>▪ <b>Update:</b> North Atlantic Landscape Conservation Cooperative</li> </ul> <p><b>Audience updates and comments:</b> Meeting attendees provide updates</p>
11:45 PM	<p><b>Lunch</b> – local Portsmouth eateries</p>
1:00 PM	<p><b>Super Storm Sandy Response</b>  <i>Bruce Carlisle and Grover Fugate, RI CRMC</i></p> <p>State Roundtable</p> <ul style="list-style-type: none"> <li>• CT and RI will provide summaries of state response and lessons learned</li> <li>• ME, NH and MA will share if/how Sandy has impacted planning or prompted changes in policies</li> </ul> <p>Federal Updates</p> <ul style="list-style-type: none"> <li>• USACE briefing on the Sandy Comprehensive Study (Roselle Henn/Joseph Vietri)</li> <li>• Other federal agencies updates on relevant funds and activities</li> </ul>
3:30 PM	<p><b>Closing Business</b></p> <ul style="list-style-type: none"> <li>▪ Discuss Fall meeting dates and topics</li> </ul>
3:45 PM	<p><b>Adjourn</b></p>

## **NROC Updates**

### **Committee Update – Executive Committee:**

#### *Regional Ocean Partnership Funding Proposal*

An official announcement of the results of the recently submitted ROP Funding Proposal is expected in time for the May 30<sup>th</sup> Council meeting. As a reminder, proposals were developed for each of the two Focus Areas: (1) Focus Area 1 -- Implementation of activities that address identified regional ocean priorities and advance national priorities, especially marine and Great Lakes planning efforts and (2) Focus Area 2 -- Development and governance support for operations of existing and new ROPs, including development of plans and management of ROP activities.

#### *NROC News Email*

The EC approved the development and distribution of NROC News – a monthly email from the Council with news and updates from NROC, its member agencies and partners. NROC News, which includes announcements sent to the Council Coordinator for distribution to NROC partners, will be emailed to NROC mailing list subscribers as well as posted on the web site.

#### *NROC Chair Rotation*

Representatives from EPA and Rhode Island are scheduled to rotate into the NROC co-chair positions at the Fall Council meeting. The make up of the Executive Committee will also change accordingly at that time. Many thanks to Bruce Carlisle and Bob LaBelle for their wonderful leadership since September 2011!

#### *Congressional Roundtable*

Steve Couture represented NROC at a ROP Congressional Roundtable in Washington, DC on February 26<sup>th</sup>. Each Regional Ocean Partnership was given 6 minutes to highlight their priorities, recent accomplishments, and work underway, with particular interest in ocean planning activities. Steve reported that the session was well received, with a good turnout and thoughtful follow up questions.

#### *DOI Hurricane Sandy Disaster Assistance*

Bruce represented NROC on a briefing call with the DOI Sandy Technical Team in late February. In mid-March, the NROC State members submitted a proposal to support direct, on-the-ground, community-based projects that will increase the resiliency and capacity of coastal habitat and infrastructure to withstand impacts from coastal storms and reduce the amount of damage caused by such storms. The proposal requests \$5 million (\$1M/state).

#### *NROC Requests for Letters of Support Policy*

The EC recently had the opportunity to review NROC's policy pertaining to requests for letters of support as there were requests by proposal developers seeking letters for the Northeast Sea Grant Consortium's Call For Preliminary Proposals under its 2014-2016: Human Dimensions of Coastal and Marine Ecosystems for social science research proposals that have relevance to the Gulf of Maine and Greater New York Bight regions. NROC's policy is that we do not endorse specific project proposals as a Council to maintain independence, avoid all conflicts of interest—including and even perceptions of conflict—and to address situations where there are multiple, competing proposals from NROC partners (or even members).

### **Committee Update – Coastal Hazards Resilience:**

The Coastal Hazards Resilience Committee continues to coordinate a regional municipal adaptation initiative funded by the NOAA Climate Program Office. The *draft* project website ([necca.stormsmart.org](http://necca.stormsmart.org)) currently features the case studies developed by Roger Williams University. Additional content including the products of the six municipal grants will be posted when the two open grants wrap up in the next month. In April, NROC and project partners hosted a session on the regional project at the inaugural National Adaptation Forum in Denver, CO. Lessons learned will also be shared with the Gulf of Maine Council in June. A meeting of the grantees to exchange information is currently being planned for September.

### **Committee Update – Ocean and Coastal Ecosystem Health:**

#### *OCEH - 1.1 Initiate the development of a regional climate change sentinel monitoring strategy*

NROC and NERACOOS are working together on a joint Ocean and Coastal Ecosystem Health Committee project to promote the development of an integrated sentinel monitoring for climate change strategy for the northeast region, building on related, ongoing efforts from Long Island Sound to the Gulf of Maine. The goal is to measure over time and quantify changes in the marine and estuarine environment. The initial step will be development of a plan that includes

identification of key variables, processes, and locations for observation. It will also contain a strategy/vision for how data will be managed, synthesized and interpreted, how data will be disseminated to the stakeholders and how the broader public can be engaged. This science plan can then be used by NROC and NERACOOS agencies and organizations to develop funding proposals to further develop the strategy and establish a sentinel monitoring network.

A Steering Committee was formed to oversee the development of the Sentinel Monitoring Plan for Climate Change and a strategy to seek funding for its implementation, including establishing pilot projects. The Steering Committee, which is composed of about 15 individuals representing government, non-governmental organizations, and academic institutions, held its first meeting on February 4, 2013, in Portsmouth, NH, and met by conference call on March 7 and April 17. So far, the steering committee has: drafted overarching goals and objectives for the project; identified approximately 50 individuals to serve on 2-3 work groups organized around different ecosystem types (e.g., pelagic, benthic, and estuarine/near shore); and begun planning a kickoff workshop for all the work groups on June 27 at the Seacoast Science Center. Additional workshops and meetings will be held throughout 2013 and 2014. Funding for these workshops and meetings has been requested through NOAA's FY13 FFO for Regional Ocean Partnerships.

#### *OCEH-2.1 Support the marsh migration pilot project*

In December 2012, in response to a request by its member states, the NROC Ocean and Ecosystem Health Committee sponsored a *Marsh Migration Workshop* with regional practitioners who are currently engaged in marsh migration assessment projects. After a day of fruitful discussions, the 40 workshop participants were very vocal about their needs moving forward, which include bridging communication and knowledge transfer between those in attendance (practitioners who use model outputs for policy decisions) and the technical marsh migration modeling community. The next steps based on the workshop participants' needs have been broken down into three products: (1) a Model Comparison Analysis to assess data gaps and various model's utility, sensitivity and functionality; (2) a follow-up larger workshop for both model developers and model users to establish collaborations on regional initiatives; and (3) development of guidance material for decisions makers in agencies, organizations, and municipalities who are continually faced with tough choices regarding assessing the future of their coastal marshes. A funding request for these products has been submitted through NOAA's FY13 FFO. In the meantime, participants in the December 2012 meeting continue to communicate within their own unofficial "community of practice" to share information, lessons learned and funding opportunities

#### *OCEH-2.2: Promote communication and coordination between ecosystem indicator programs*

EPA's ORISE Fellow has been contacting members of the environmental indicators Community of Practice (COP) by phone and e-mail to collect information about the utility and functionality of the COP web site and determine if there are other mechanisms available to share information. The COP steering committee has decided to look into collaborating with existing listservs (ex. ESIP, NEERs, NERACOOS) to share information pertinent to ecosystem indicator programs. The steering committee is also exploring the possibility of hosting a workshop for this community to discuss linking data collection to synthesis and management decisions.

#### *OCEH-2.3: Develop an environmental events database*

The environmental events database is in its early stages. Funding has been requested through NOAA's FY13 FFO. In the meantime, a steering committee will be established to work with a CT DEEP I-RICH Fellow to determine how best to build the database.

### **Committee Update – Ocean Planning:**

#### *Project Updates:*

##### Commercial Fishing Mapping

- A final report on the first phase of mapping work will be released in June. An initial set of maps will be released through [www.northeastoceandata.org](http://www.northeastoceandata.org) at that time.
- The report will include recommendations for next steps that will become the basis for a second phase of work that will begin in Fall 2013.

##### Marine Industry Engagement

- Summaries of the initial phase of engagement with the maritime commerce, energy, and aquaculture sectors are available online at [www.northeastoceancouncil.org](http://www.northeastoceancouncil.org) along with a series of white papers summarizing the status and trends for each industry.
- The data portal team is developing new datasets and maps characterizing the maritime commerce, energy, and aquaculture sectors. These new maps are being developed in consultation with representatives from each sector and are building on recommendations from the initial phase of engagement last fall.

#### Recreational Boating Survey

- The 2012 Northeast Recreational Boater Survey conducted with SeaPlan has been completed. Data analysis is near complete and a final report will likely be released in early summer.
- NROC and SeaPlan hosted a series of workshops in each state to discuss draft results with the recreational boating industry and state and federal agencies. These meetings also included a discussion of recreational boating industry issues that could be addressed by ocean planning. A summary of these meetings will be available in June.
- A preliminary map of regional recreational boating density has been released through [www.northeastoceandata.org](http://www.northeastoceandata.org). Additional maps and data will follow with the release of the report.

#### Natural resource/conservation issues

- NROC conducted outreach to a range of environmental organizations in February and March to discuss ocean planning issues. A summary of these discussions was provided for RPB member consideration when developing ocean planning goals and actions.
- NROC, SeaGrant, and TNC held over twenty meetings in March and April with scientists throughout the region to discuss data availability and potential methods for developing regional maps to characterize marine mammals, birds, fish, and shellfish for planning purposes. The recommendations from these meetings are being summarized and presented back to the project's technical committee for further discussion.

#### Data Portal

- The data portal was updated in late April with a new data viewer, new thematic maps, and new data. All of these updates are the result of extensive outreach to stakeholders and state, federal and tribal officials. Among the new data available on the website are:
  - A compilation of aquaculture sites in CT, RI, NH and ME.
  - A map of recreational boating activity based on the recreational boating survey.
  - Maps of pilot boarding areas, naval restricted areas, safety and security zones, and marine mammal management areas.
  - An initial set of maps from The Nature Conservancy and the Northeast Fisheries Science Center that characterize a range of marine life. These maps are intended to provide a starting point for discussions with stakeholders about the appropriate characterization of natural resources.
- The data portal team continues to develop data products and maps. Future updates to the site will likely be on a rolling basis as new data become available.

#### Communications

- Eastern Research Group (ERG) was awarded a contract to support ocean planning communications after a competitive process.
- ERG has begun to support ocean planning through modifications to the NROC website to support the public comment period on draft ocean planning goals and actions.

#### *Regional Planning Body Update:*

#### Second RPB Meeting Held April 11-12 in Narragansett, RI

- Over 100 public registered, including 18 industry folks from commerce, energy, recreational fishing, aquaculture, and commercial fishing sectors.
- Meeting accomplishments included:
  - **Approved draft goals**, narrative and potential actions and outcomes around the themes of 1) Effective Decision Making, 2) Healthy Ocean and Coastal Ecosystems, and 3) Compatibility Among Past, Current and Future Ocean Uses. Draft goals reflect tribal, state, federal and Fishery Management Council priorities presented at the meeting and integrated by the RPB. See note below on upcoming public meetings around New England to seek input, including an online public comment period. See website for draft goals.
  - **Charter and 3-year timeline** were approved and will be posted online
  - **Affirmed importance of stakeholder engagement** by approving an engagement strategy and forming a small working group to define options for setting up a non-government stakeholder group.
  - **Working relationship strengthened** and full participation from 9/10 federally recognized tribes.
  - **Public comment opportunities** were more frequent and process refined in response to feedback.
  - **Senator Whitehouse (D-RI)** shared importance and urgency of this planning effort and the resources needed to sustain it.

## Ocean Planning Public Meetings

- NROC with support from the Consensus Building Institute is organizing a series of public meetings on behalf of the Regional Planning Body to obtain public comment on draft ocean planning goals and to review maps and other ocean planning products developed to date.  
<http://northeastoceancouncil.org/regional-planning-body/public-meetings/>
- Public Meeting Schedule:
  - Thursday May 23, 4:00 to 7:00 PM Portland, ME
  - Tuesday May 28, 4:00 to 7:00 PM Narragansett, RI
  - Monday June 3, 4:00 to 7:00 PM Ellsworth, ME
  - Tuesday June 4, 5:30 to 8:30 PM Rockland, ME
  - Thursday June 6, 4:00 to 7:00 PM Boston, MA
  - Thursday June 13, 4:00 to 7:00 PM New Haven, CT
  - Monday June 17, 4:00 to 7:00 PM New Bedford, MA
  - Tuesday June 18, 4:00 to 7:00 PM Gloucester, MA
  - Wednesday June 19, 4:00 to 7:00 PM Barnstable, MA
  - Tuesday June 25, 4:00 to 7:00 PM Portsmouth, NH

## Next Steps

- RPB will meet virtually in late June to discuss public meeting results and how to incorporate feedback into draft goals. Expect next in-person RPB meeting to occur in September timeframe where objectives and a work plan will be on agenda for discussion.

## **Partner Updates**

### **Partner Update – NERACOOS:**

#### *Northeast Ocean Acidification Monitoring Network in Development*

NERACOOS is helping to develop a regional ocean acidification monitoring network with other regional and national partners. The network will engage many sectors and will help coordinate and expand the monitoring of ocean acidification in Northeast coastal and ocean waters. The network is in a formative stage with an initial effort to develop a steering committee and to learn from a similar west coast effort.

#### *Mobile Access to NERACOOS*

In order to keep up with the expanding use of smart phones and tablets, NERACOOS and its web development partner at the Gulf of Maine Research Institute are currently developing mobile versions of many of our web-based products. In the first phase of this effort NERACOOS will deliver mobile access to our real-time data products that are used by thousands every week.

#### *Ensuring Uninterrupted Delivery of Ocean Information*

The delivery of NERACOOS ocean forecasts and real-time buoy data were interrupted during Hurricane Sandy and during some of the major winter storms in 2013. Weather forecasters, emergency managers and others rely on this information during these extreme weather events. NERACOOS has initiated an effort to harden its IT infrastructure to ensure 24/7 delivery of information during extreme weather events and is anticipating support from the Sandy supplemental bill to help accomplish this work.

#### *Harmful Algal Bloom Sensor Deployment*

Scientists from the Woods Hole Oceanographic Institution (WHOI) will be deploying two high-tech buoys off the coast of Portsmouth, NH this spring and summer. Each of these buoys will carry an Environmental Sample Processor (ESP), which is a robotic instrument capable of detecting the toxic cells of the New England harmful algal bloom (HAB) organism, a microscopic algae called *Alexandrium*, in the water. These instruments will also be measuring the amount of toxin in the water. The information collected from these buoys will provide an early warning of HAB activity and will help state managers predict where and when shellfish may become toxic. NERACOOS will be receiving funding from the US IOOS office that will continue to support our collaboration with WHOI and specifically support the future deployment of additional HAB sensors and delivery of information from this effort.

#### *Development of a Northeast Integrated Sentinel Monitoring Program*

A regional sentinel monitoring steering committee has been formed and has since created a set of project goals, vision, and objectives. There will be a workshop at the end of June to bring together individuals from three sentinel monitoring

working groups; benthic, pelagic, and near-shore. These working groups, as appointed by the steering committee are composed of experts from within the region, which spans Long Island Sound to Nova Scotia. Within the next year they will be responsible for performing a gap analysis of current observing efforts in the region and working closely with the Long Island Study project to create a work plan.

#### *World Oceans Day Celebration*

Save the date- June 8, 2013 (10am-Noon) for a World Oceans Day celebration at the Seacoast Science Center, co-hosted with NERACOOS. Local and regional experts will gather to share how ocean acidification affects us in our everyday lives. Come join us at this family-friendly event to learn what it means to you and our oceans. Kids, ages 5 and up will be supervised in the Sugden House doing fun, hands-on activities while parents relax and engage with scientists and fishermen. Bring a picnic and celebrate World Ocean's Day with us by the seaside!

#### *Coastal Hazards Resiliency - Inundation Prediction System for Seacoast, NH*

NERACOOS ocean modeling partners from the University of Massachusetts at Dartmouth and the Woods Hole Oceanographic Institution are continuing their development of a high resolution inundation forecast system for the Hampton/Seabrook, NH area. This system will give weather forecasters and emergency managers detailed information on the timing and magnitude of potential flooding, which will help them more effectively prepare response and rescue efforts. Organizations supporting this collaborative project include: the towns of Hampton and Seabrook, NH, the New Hampshire Department of Environmental Services Coastal Program, the Piscataqua Region Estuaries Partnership (PREP), NextEra Energy Seabrook, the National Weather Service, NERACOOS and its ocean modeling partners.

For more information about any of these projects please contact Ru Morrison ([ru.morrison@neracoos.org](mailto:ru.morrison@neracoos.org))

#### **Partner Update – Northeast Sea Grant Consortium:**

NESGC Regional RFP was released in early January 2013. The focus of the RFP was “Human Dimensions of Coastal and Marine Ecosystems” and specific topic areas included:

- Development of decision-support tools that help stakeholders conceptualize or evaluate the trade-offs of future scenarios in coastal communities.
- Evaluation of the effectiveness of current governance institutions and regulatory frameworks and the ability to enforce them in coastal and marine ecosystems.
- Socioeconomic research in support of management decisions which address the balance among economic development, ecosystem protection and sustainability..
- Socioeconomic research on new paradigms in management and governance to improve coastal management.
- Development of indices for ecological services valuation.
- Contribution to a better understanding of ecosystem services through the development of data collection tools, models, valuation indices that provide a framework for decision making aimed at maximizing ecological and economic sustainability of coastal communities.
- Advancing our understanding of the vulnerabilities and resiliency of coastal communities to a changing environment and economy and develops tools for decision makers to better plan and respond to those challenges.

The consortium received thirty pre-proposals in response to the RFP. The pre-proposals were reviewed by the Northeast Sea Grant directors with input from five social scientists and BOEM staff. Eight projects were invited for full proposal development; the proposals are due June 3<sup>rd</sup> and funding will begin on February 1, 2014.

#### **Partner Update – Gulf of Maine Council:**

##### *Council and Working Group meetings*

The next Working Group and Council meetings are scheduled for June 11-12, and June 13 respectively. At these meetings presentations of the fund development strategy and highlights of the work done by individual committees to implement priority activities of the 2012-2017 Action Plan are among the topics for discussion. Besides internal and administrative issues, the Council meeting will focus on certain aspects of climate change impacts and sustainable

communities, and will include presentations of the work funded by the Climate Program Office Municipal Grants on coastal resiliency (GOMC-NROC). At the close of the Council meeting, the Massachusetts secretariat will pass the gavel to Nova Scotia.

*Fund Development*

In January 2012 the Council issued a Request for Responses for a Fund Development Strategy that will provide sound and ready-to-go recommendations to the Council moving forward to address its financial needs. Juli Beth Hinds from Birchline Planning Inc has been contracted and is working closely with the Council's Ad Hoc Fund Development Group and the individual committees to develop a plan that is due this month. The plan will be presented to the Council at the meeting in June 2013.

*State of the Gulf of Maine series*

Work continues on the development, publication and rollout of State of the Gulf theme papers. A theme paper on Coastal Land Use and Development in the Gulf of Maine is under review and should be published shortly.

*Ecosystem Indicators Partnership Committee*

ESIP has been working on developing a Contaminants Fact Sheet to be released this summer. In addition the website is undergoing substantial changes which will be available shortly.

*Gulfwatch Contaminants Monitoring Committee*

Over the last few years the Gulfwatch Contaminants Monitoring Program has been facing funding challenges. Various options are being explored (including partnering with NOAA's Musselwatch Program) to identify the best way to maintain this monitoring program which has been ongoing for 20 years. The committee is reassessing its resources and capabilities through development of a business plan (being finalized) that will help indicate the best way to move forward. Additionally, in an effort to respond to evolving the science in the field of ecotoxicology, the committee is finalizing a study on the feasibility of adapting the program to address emerging contaminants. More information will be forthcoming.

*Climate Network*

The climate change network is currently undergoing an overhaul as the co-chairs are revising the goals to line up with the 2012-2017 Action Plan as well as with evolving issues related to climate. The co-chairs are also seeking to engage experts in the field to establish a committee. A workshop to launch this initiative is scheduled for the summer of 2013, with a probable venue in Maine.

**Partner Update – North Atlantic Landscape Conservation Cooperative:**

The North Atlantic LCC recently released its annual report for 2012: <http://www.northatlanticlcc.org/resources/resources-inbox/north-atlantic-lcc-2012-highlights-report>

A summary of North Atlantic LCC Projects that relate to coastal and marine systems is provided below. Additional detail can be found at: <http://www.northatlanticlcc.org/projects>

Project (and lead P.I.)	Summary and recent developments
<p><b>Forecast Effects of Accelerating Sea-level Rise on the Habitat of Atlantic Coast Piping Plovers and Identify Responsive Conservation Strategies</b>  <i>Sarah Karpanty, Virginia Tech</i></p>	<p>The overall objective of this project is to understand the potential effects of accelerating sea-level rise and altered storminess on piping plover breeding habitat on the U.S. Atlantic Coast using a Bayesian Network that couples models of plover habitat use and coastal change. Initial phase of this project to be completed by January 2014</p>
<p><b>Application of the Coastal and Marine Ecological Classification Standards to the Northeast</b>  <i>Jennifer Greene, TNC</i>  <i>Kathryn Ford, Mass. Fish &amp; Game</i>  <i>John King, URI GSO</i></p>	<p>This project will utilize the national Coastal and Marine Ecological Classification Standard (CMECS) to classify estuarine and marine environments in the northwest Atlantic region (Maine to Virginia). Work is underway to begin to calibrate the CMECS model at local, subregional, and regional scales.</p>
<p><b>Marine Bird Mapping and Assessment</b>  <i>Beth Gardner, NC State Univ.</i>  <i>Brian Kinlan, NOAA</i>  <i>Richard Veit, CUNY/CSI</i>  <i>Iain Stenhouse, BRI</i></p>	<p>Creating a comprehensive map of marine bird distributions and risk assessments for the North Atlantic. Marine bird modeling initially was tested in a restricted area (Nantucket Sound), and is now being expanded. Seabird data are also being compiled.</p>

<b>Project (and lead P.I.)</b>	<b>Summary and recent developments</b>
<p><b>Consistent Coastal Mapping, National Wetlands Inventory – Coastal Update</b>  <i>Scott Klopfer, CMI at Virginia Tech</i></p>	<p>Updating National Wetland Inventory quads for the North Atlantic LCC coast so that all NWI coastal wetland mapping is up to date. Initial work underway with short-turnaround (expected completion in the fall, 2013).</p>
<p><b>Structured Decision Making for Sea Level Rise</b>  <i>Andrew Milliken &amp; Tim Jones, USFWS</i></p>	<p>Completed a Structured Decision Making (SDM) Workshop with a group of 10 partners to articulate a decision problem and objectives for applying information about sea level rise to decision-making. Results are now being used to guide a sea level rise decision model funded by the Northeast Climate Science Center and being developed by USGS and Columbia University (see below).</p>
<p><b>Research and Decision Support Framework to Evaluate Sea-level Rise Impacts for the U.S. Atlantic Coast</b>  <i>E. Robert Thieler, USGS                      Radley Horton, Columbia Univ.</i></p>	<p>One of the principal impacts of sea-level rise will be the loss of land in coastal areas through erosion and submergence of the coastal landscape. However, changes vary across space and time and are difficult to predict because landforms such as beaches, barriers, and marshes can respond to sea level rise in complicated, dynamic ways. This project will develop decision support models to address critical management decisions at regional and local scales, considering both dynamic and simple inundation responses to sea-level rise.</p>
<p><b>Providing Science and Tools in Support of the North Atlantic LCC: Designing Sustainable Landscapes for Wildlife</b>  <i>Kevin McGarigal, UMass Amherst</i></p>	<p>Developing a framework and set of models and tools for the Northeast Region to guide conservation decisions in the face of regional change from urban growth, climate change and other major drivers including impacts to representative species and ecological integrity. Includes the incorporation of sea level rise models from USGS project.</p>
<p><b>Decision support tool to assess aquatic habitats and threats in North Atlantic watersheds and estuaries</b>  <i>Fritz Boettner, Downstream Strategies</i></p>	<p>Compilation of distribution, status and threats of aquatic and coastal fish and their habitats in the watersheds and coastal zone of the North Atlantic LCC in close cooperation with Fish Habitat Partnerships. The agreement was finalized in February. Downstream Strategies is working with partners to identify stakeholders and to start planning an introductory workshop.</p>
<p><b>Vulnerabilities to climate change of Northeast fish and wildlife habitats, Phase II</b> (through RCN grant program)  <i>Hector Galbraith, Manomet; George Gay, National Wildlife Federation</i></p>	<p>Second phase of regional climate change habitat vulnerability assessment. Work on the habitat vulnerability component of this project by builds on the Phase I work funded through a 2009 RCN grant – <i>final draft report complete</i>; coastal vulnerability is focused on the development of a report and database of ongoing projects by NWF as part of a collaboration on a <i>NEclimateUS.org</i> site with NOAA and other partners – <i>final draft report and draft database complete</i>; aquatic vulnerability is focused on coldwater fish – <i>final draft report complete</i>.</p>
<p><b>Use of a vulnerability index to assess species most likely to be impacted by climate change</b>  <i>P.I.: Bruce Young, NatureServe</i></p>	<p>Regional climate change species vulnerability assessment. NatureServe developed an advisory committee, selected a list of 64 species for assessment including a mixture of foundational and representative species and species of high regional concern and begun species assessments.</p>
<p><b>Demonstration project - Integrating Science into Policy - Local Adaptation for Marsh Migration in Maine</b>  <i>Steve Walker, Maine DIFW</i></p>	<p>One of three projects underway to show the application of science tools developed through the LCC and RCN program. Coastal marshes serve a variety of important functions including flood control, spawning/rearing areas for marine life, and critical habitat for many bird species of conservation concern. The focus of this project is to facilitate local actions in Maine to accommodate the needs of coastal marshes to migrate landward in response to rising sea levels.</p>

Project (and lead P.I.)	Summary and recent developments
<p><b>Landscape Conservation Design and Synthesis for State Wildlife Action Plan Updates</b>  <i>Steve Fuller, North Atlantic LCC</i></p>	<p>Compilation, organization, synthesis, science translation and adoption for completed, ongoing and future projects including:                      1) immediate organization of existing data to make information more available; 2) synthesis of existing data to develop/compile landscape designs that will allow partners to map and prioritize focus areas for conservation; 3) translation of maps and other tools to make landscape design data useful at various scales and in various formats; and 4) assistance to ensure that science and tools are understood and consistently adopted and implemented in support of on-the-ground conservation. GIS Analysts in the LCC and TNC are working with LCC staff, state and other partners. Initial focus on synthesizing information for the State Wildlife Action Plan Updates.</p>