



AGENDA • May 19, 2011

EPA Region 1 Headquarters • 5 Post Office Square, Boston

Court Room Number 6, 15th floor

Directions to meeting location: <http://www.epa.gov/ne/directions/index.html>

NROC Website: <http://collaborate.csc.noaa.gov/nroc>

	<i>Arrive & Networking before meeting</i>
9:00-9:15	<u>Welcome & Introductions</u> <i>NROC Co-Chairs: Ted Diers, NH and Betsy Nicholson, NOAA</i> Welcome New Members
9:15-10:15	<u>CMSP Discussion</u> <i>John Weber, NROC CMSP Managing Director and Betsy Nicholson, NOAA</i> <ul style="list-style-type: none"> ▪ Smart from the Start Intersections with CMSP, <i>Bob LaBelle, BOEMRE</i> ▪ National update, <i>Kathleen Leyden, ME/GCC and Betsy Nicholson, NOAA</i> ▪ Strategy for regional progress over next six months, <i>John Weber, NROC</i> <i>Materials: Strategy for Regional Progress [p. 4]</i>
10:15-11:00	<u>Regional Climate Update</u> <i>Regina Lyons, EPA and Ellen Mecray, NOAA</i> Dialogue on new and upcoming regional climate activities. <ul style="list-style-type: none"> ▪ GEOS/ AMI project update, <i>Lisa Rector, NESCAUM</i> ▪ Review/Status of pilot projects identified at the Regional Climate Priorities and Project Workshop in June 2010, <i>Ellen Mecray, NOAA</i> ▪ National Climate Update, <i>Ellen Mecray, NOAA</i> <ul style="list-style-type: none"> ▪ Federal – State Hot Topics ▪ Discussion: Climate Change vs. Coastal Resilience <i>Materials: Update of State Climate Change Adaptation Efforts [p. 8]</i>
11:00-11:45	<u>Partner Dialogue</u> Provide partners with opportunity to ask questions and highlight collaboration opportunities.
11:45 – 12:45	<u>LUNCH</u> EPA's cafeteria
12:45-1:00	<u>New England Coastal Conservation Strategy</u> <i>Kathleen Leyden, ME</i> Share progress on key 2010 NROC project with members. <ul style="list-style-type: none"> ▪ Overview of project, timeline, and funding needs ▪ Results from CELCP Plan Analysis



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1:00-1:10	<p><u>FY12 Appropriations Efforts</u> <i>Susan Russell-Robinson, USGS</i></p> <ul style="list-style-type: none">▪ Update on FY11/12/13 Funding and Impacts on Northeast <p><i>Materials: FY12 Appropriations [p. 12]</i></p>
1:10-1:40	<p><u>NROC Social Network Analysis Results</u> <i>Betsy Nicholson, NOAA</i></p> <ul style="list-style-type: none">▪ Results from Social Network Analysis▪ Discuss possible changes to NROC organizational structure based on SNA recommendations <p><i>Materials: NROC Social Network Analysis Project: Results Summary & Recommendations [p. 14]</i></p>
1:40-2:45	<p><u>NROC Committee Updates</u> <i>Committee Co-Chairs</i></p> <ul style="list-style-type: none">▪ Resilience:<ul style="list-style-type: none">○ Launch of StormSmart Coasts Network – <i>Julia Knisel, MA</i>▪ Ecosystems:<ul style="list-style-type: none">○ Indicators Workshop – <i>Mel Cote, EPA</i>○ Seafloor Mapping Workshop – <i>Bruce Carlisle, MA</i>▪ Plan to keep Committees active and work plans relevant, <i>Ted Diers, NH</i>▪ Discussion about enhancing regional coordination <p><i>Materials: Ecosystems Indicators Workshop Outcomes [p. 19]; Proposed Seafloor mapping Workshop [p. 21]; Exploring ways to enhance regional collaboration [p. 22]</i></p>
2:45-4:00	<p><u>NROC Business</u> <i>Ted Diers, NH and Betsy Nicholson, NOAA</i></p> <ul style="list-style-type: none">▪ MOU Updates and discussion on meaningful reporting/communication<ul style="list-style-type: none">○ NE Sea Grant Consortium-NROC MOU○ Gulf of Maine Council-NROC MOU○ NERACOOS-NROC MOU [p.23]○ MA Ocean Partnership – NROC MOU (under development)▪ Upcoming NOC Strategic Action Plan Listening Session for New England June 27 -<i>Susan Russell-Robinson, USGS</i>▪ New England Federal Partners Update: Statement of Common Purpose; Tribal engagement update – <i>Nicole Bartlett, NOAA</i>▪ Coastal Zone Conference 2011, Chicago, July and NROC-led sessions – <i>Betsy Nicholson, NOAA</i>▪ Next Meeting and Chair Rotation: Select timeframe for next meeting; solicit agenda items - <i>Ted Diers, NH</i>



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4:00-4:15

Wrap Up and Adjourn

Ted Diers, NH and Betsy Nicholson, NOAA

Strategy for Regional Progress

Submitted by John Weber, NROC

Overall goal: One year from now this effort¹ is a success if the following outcomes are met:

- 1. NROC and the RPB have an agreed-upon set of goals and objectives, addressing substantive and procedural needs, for a regional planning effort.**
- 2. NROC and the RPB are implementing the structure/processes/projects identified as necessary to accomplish these goals within a specific timeline, such as: data development and the regional data portal, model and tool assessment, consideration of implementation measures, and stakeholder involvement. These elements are recognized by the NROC as effective models.**
- 3. NROC is actively and substantively engaged with academia, NGOs, tribes and other regional stakeholders and potential partners, is encouraging their momentum and building synergies between efforts within the region. This engagement includes a range of formal to informal processes as appropriate.**
- 4. Additional resource and capacity needs are identified, prioritized, and are being met, as resources allow, with a plan for future (2012) needs articulated. This could include acquisition of outside-NROC resources and in-kind contributions from NROC members or others.**

To achieve these four outcomes, the following tasks form the workplan below, which begins with a focus on the next four months and then more generally maps out other necessary elements in later months. This four-month period of time includes the May 17-18 meeting of regional federal RPB members, May 19 NROC meeting, the national CMSP workshop June 21-23, and the establishment of the Regional Planning Body (RPB) in July/August. These events provide a timetable for NROC to further develop its goals and objectives for regional CMSP in order to speak at these events with a unified voice and make collective progress (particularly the national workshop and RPB).

Task 1. Goals and objectives

This task will include a review and revision of the fall 2010 NROC Framework for regional CMSP. A goal will be to come to consensus on as much of the language as possible before the national workshop in June. The goals and objectives will also have an important bearing on the regional data portal, inasmuch as they will help form data development tasks.

Sub-tasks:

- a. Starting with 2010 NROC framework, revise goals, desired outcomes, and principles, based upon conversations with NROC members and regional partners.
- b. Incorporate any appropriate relevant material from National Policy, Framework, and any other pertinent NROC guidance.
- c. As appropriate, present/facilitate at NROC May 19 meeting and/or May 17-18 federal partners meeting to help with this task.
- d. Prep for NROC to carry unified message to national workshop regarding shared goals, identified data and stakeholder involvement needs, and existing projects and progress made toward achieving NROC work plan.

Outcome: Refined NROC regional CMSP framework/goals/objectives, supported by NROC at national workshop and ready for presentation to RPB/public/stakeholders. A preliminary outcome over the next three

¹ Objectives per grant agreement: to help develop a common vision, framework, and process to facilitate implementation of Coastal and Marine Spatial Planning (CMSP) in federal waters in the Northeast region, building off Massachusetts, Rhode Island, and Maine lessons and the recommendations and requirements of the National Ocean Policy, and positioning the region as a national leader.

months is to have general agreement on these CMSP elements for the national workshop and identify necessary next steps.

Future tasks: Work with RPB to further refine region's goals and objectives and incorporate appropriately-scaled stakeholder process, including but not limited to the regional workshop. A first step will be to educate RPB members on progress made to date and efforts underway.

Task 2. Structure and process

This task will result in the development of the structures and processes/projects, accompanied by timeline, necessary to achieve the goals developed in Task 1. Aspects of this task include data development and the data portal, model and tool assessment, potential governance and implementation measures, and stakeholder involvement processes. Additional internal NROC and/or RPB mechanisms will be identified and implemented as needed to augment existing NROC entities such as the EC and MSP Strategy Team (e.g., a technical data team to work with the regional data portal team or others).

Sub-tasks:

- a. *Data and data portal:* Based on identified goals from Task 1, develop detailed data needs, identify resources (funds, capacity) needed to address those needs, and begin to scope potential projects. As part of initial conversations with NROC members, discuss capacity to lead/participate on these projects. Identify existing efforts to incorporate/leverage (e.g., utility of data development and data portal efforts to assist BOEMRE offshore renewable energy leasing process). Incorporate stakeholder involvement as appropriate. Work with data portal team to ensure coordination with NROC and national efforts (MMC and NIMS, e.g.).
- b. *Model and tool assessment:* based on identified goals, assess models/tools that could be used for regional plan, building on existing assessments. Scope model application (data needs, staff needs/expertise, other resources needed) and develop potential project details/existing capacity.
- c. *Potential governance measures:* identify structure for NROC-RPB relationship during plan development (e.g., between NROC and RPB). Identify need for other entities (e.g., advisory bodies) to be convened. Identify communication and coordination tasks (the "wire diagram" for how regional CMSP development will work).
- d. *Plan implementation options:* identify vehicles for implementing regional plan, including but not limited to enhancing coordination and communication, applying data and tools, incorporating into regulatory decisions, and opportunities for efficiencies. Identify options at state and federal (and cross-jurisdictional) levels.
- e. *Stakeholder involvement:* Because this is potentially very resource- and time-intensive, develop scalable options for stakeholder involvement. Incorporate stakeholder engagement in other projects (e.g., as part of specific data development projects).

Outcome: Recognizing that much of this task is depends on additional resources/funding, this task will result in:

- data development projects underway in response to identified priorities;
- data portal team completing additional CMSP data serving priorities;
- Models and tools identified for potential use
- Plan implementation options identified and being discussed with a general goal of agreement on some elements by spring 2012.
- Stakeholder involvement processes designed and underway, in general and through other specific projects
- CMSP structure in place, with appropriate lines of communication and responsibilities/roles clearly defined and established.

A preliminary outcome over the next four months is to begin scoping specific data development projects, in

part for conversations at national workshop. Additionally, discussion of general plan implementation and governance (particularly related to NROC-RPB relationship) alternatives begin.

Future tasks: Assist in convening of RPB, development of terms of reference/development agreements for RPB; develop RPB work plan based in part on capacity assessment; convene advisory bodies as appropriate; develop and implement communications links, work flows between all such entities. Implement stakeholder involvement as appropriate and as resources allow. Continue data development and data portal construction. Identify needs for any identified models/tools.

Task 3. Communication

This task will result in implementation of an overall communications strategy to ensure NROC (and RPB) is engaged with regional stakeholders and potential partners. The strategy has three main components: first, ensure existing and potential new partners are aware/supportive of NROC CMSP efforts, and that partner feedback is incorporated to improve CMSP; second, increase opportunities for funding and leveraging partner resources; and third, engage general public and key stakeholders in substantive development of plan. This third component is heavily resource-dependent and includes a long-term communication commitment to ensure continued engagement.

Sub-tasks:

- a. *Partners:* identify and communicate with existing and potential new partners. Such partners include those within the region (NEFMC, academia, industry groups, NGOs, Sea Grant, etc.) and outside (MARCO, WCGA, NOC, etc). Identify specific opportunities and approaches to engaging partners, recognizing that certain partners may respond best to different approaches. Ensure partner feedback is communicated to broader NROC. Coordinate with messaging by national partners such as that conducted by the NOC.
- b. *Potential funding:* Identify and actively engage potential funding opportunities and discuss potential leveraging of funds with partners.
- c. *Stakeholder involvement:* For general stakeholder involvement, for now implement on an opportunistic basis and begin developing scalable options, noting the significant resources required. Note: this issue also is identified in the structure/process task in recognition of its vital component to the process of regional CMSP, and the structures which must be carefully considered to implement a successful stakeholder involvement strategy.

Outcome: Established lines of communications with key partners in the region and nationally. Identify and pursue funding and leveraging opportunities. Resource needs for stakeholder involvement identified and prioritized. A preliminary outcome over the next four months is to establish contacts with partners, with partners aware of NROC efforts and providing input. Stakeholder involvement options are identified and begun to be scoped.

Future tasks: Implementation of communication strategies. Continued and enhanced involvement of regional and national partners in support of NROC CMSP, leading to leveraged efforts of other partners.

Task 4. Resource/capacity

This task will result in additional resource and capacity needs prioritized, pursued, and being met. Note that the other tasks also include aspects of this issue, but it is important enough to highlight on its own given the practical needs for developing a regional ocean plan. NROC anticipates that NROC members and other partners/funding sources will combine to meet these needs.

Sub-tasks:

- a. As part of other tasks, identify resource and capacity needs necessary to achieve NROC goals (short and long term). Consider NROC members and other sources as appropriate.

- b. Leverage existing projects wherever possible and ensure partners are aware of NROC interests to maximize leveraging possibility. Actively engage potential federal partners to ensure their awareness of NROC needs and to ensure NROC is poised to take advantage of opportunities as they arise. Work with the research and scientific community to pursue NROC priorities.
- c. Periodically revisit resource/capacity needs to ensure adaptive approach is employed.

Outcome: Identified needs, particularly in the short-term but also with an eye toward the long-term, are met through combination of resources from NROC members and others, both through direct resources and leveraging of other efforts. A preliminary outcome over the next four months is to identify priority resource needs generally needed to accomplish identified planning goals, and to begin conversations with NROC members and partners regarding options to address those needs, to enable NROC to relay the results of such conversations at the national workshop.

Future tasks: continue these tasks—this will be an evolving/adaptive approach. Continue investigating funding resources for specific elements of RPB work plan and specifically investigate future fiscal/institutional options and functions for CMSP director.

Update of State Climate Change Adaptation Efforts (February 2010)

Submitted by Regina Lyons, EPA

Maine: Maine's state-level climate adaptation planning is guided by a legislative resolve in 2009 directing the Department of Environmental Protection to convene stakeholders to "evaluate the options and actions available to Maine people and businesses to prepare for and adapt to the most likely impacts of climate change." Over 75 organizations, agencies, businesses, and public interest groups participated in a 35-member coordinating committee, or on one of four working groups that carried out initial assessments of Maine's vulnerability in the natural, coastal, built, and human/social environments. Baseline information came from a published report, *Maine's Climate Future: An Initial Assessment*, produced by the Climate Change Institute at the University of Maine.

The Department delivered a report, *People and Nature Adapting to a Changing Climate: Charting Maine's Course* on its findings, together with 65+ recommendations, in February of 2010. The Report is not an "adaptation plan" per se; rather, it charts the state's course toward a more comprehensive plan. Many of the recommendations are currently being acted on by state agencies, municipalities, and the academic community, such as developing climate change awareness materials for municipalities, initiating local planning processes, or identifying key natural system disruption thresholds for monitoring, using existing resources. The stakeholder effort to complete a state plan by January 2012 is currently on hold. This process may include specific economic analysis to set priorities among the existing recommendations, and identify additional, longer-term actions. However, the change in political climate in the state has left any continuing action on climate issues, both mitigation and adaptation, in substantial doubt pending review by the new administration.

Point of Contact: *Malcolm Burson, ME Department of Environmental Protection;*
Malcolm.C.Burson@maine.gov/207-287-7755

New Hampshire: There has been a lot of climate adaptation action in NH the past 6 months. The NH Coastal Adaptation Workgroup (NHCAW) has been busy on several fronts. NHCAW developed and offered two workshops in 2010. The first was *Hazard Mitigation Plans and Climate Adaptation Workshop* at the Northern New England Chapter of the American Planning Association conference on Oct. 8. This workshop was specifically designed to educate professional planners on how to incorporate climate adaptation planning into Hazard Mitigation Plans. The second was *Water, Weather, Climate and Community Workshop* at the Hugh Gregg Coastal Conservation Center GBNERR on Nov. 30. This workshop was the first in a series of workshops that will cover a wide variety of topics that will provide municipalities the science based information and tools to adapt to a changing climate.

NHCAW and its members are currently involved with several projects that will be completed in the spring or summer of 2011 and that will further adaptation efforts in the state. On the freshwater side with UNH Institute for the Study of Earth Oceans and Space, the CICEET funded research project *Assessing Risk of 100 year Freshwater Floods in the Lamprey River Watershed of NH Resulting from Changes in Climate and Land Use* is in the final stages of product development. A workshop to disseminate the project results is currently being developed and will be offered in late spring.

A NH coastal climate assessment is nearing completion by Carbon Solutions NE and GBNERR, titled *Climate Change in the Great Bay Watershed: Past, Present and Future*. This report and follow-up materials will provide specific decision support information regarding climate for state and municipal decision makers. The report is being drafted now and should be complete by the spring 2011 when workshop will be offered.

The NHCP and CSC are currently creating the NH specific content for the Storm Smart Coast Network. NHCAW has reviewed the material. NHCAW has completed draft policy recommendations and is tracking current legislative actions. NHCAW has also begun to research and will produce a NH Coast Risk and Vulnerability Assessment. This assessment will serve as a how to guide for coastal municipalities with standardized data on a regional level. Once the assessment is completed NHCAW hopes to work with individual municipalities on town level assessments.

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

The NH Department of Environmental Services in conjunction with the NH Department of Health and Human Services received funding from the Association of State and Territorial Health Officials (ASTHO) through the Centers for Disease Control to initiate a needs assessment to determine the state public health system's ability to respond to Climate Change. We invited members from the state public health system (SPHS) (state, regional, municipal, etc...) to attend a series of focus groups to assess the climate change capacity of the SPHS. The resulting Needs Assessment was then used to create a Public Health and Climate Change Strategic Plan. With additional (minimal) funding from ASTHO the implementation of the Strategic Plan will begin in 2011. The work of this group will be incorporated into an overall state-wide Adaptation Plan (in conjunction with the other adaptation efforts across the state).

*Points of contact: Sherry Godlewski, NH Department of Environmental Services;
sherry.godlewski@des.nh.gov 603-271-6801 or Rick Rumba, NH Department of Environmental Services;
richard.rumba@des.nh.gov*

The NH Fish and Game Department is updating its Wildlife Action Plan to incorporate impacts of climate change on habitat, ecosystem and wildlife in New Hampshire.

*Points of contact: John Kanter, NH Fish and Game; john.kanter@wildlife.nh.gov or Emily Brunkhurst;
emily.brunkhurst@wildlife.nh.gov; 603-271-2461*

Massachusetts: The Global Warming Solutions Act, passed by the Massachusetts legislature in 2008, required that the Secretary of Energy and Environmental Affairs convene an advisory committee who would be responsible for evaluating climate change adaptation strategies and preparing a report. EEA and its agencies were actively involved in coordinating with the advisory committee and its subcommittees. Several other agencies, including the Massachusetts Emergency Management Agency, the Department of Public Health, the Department of Transportation, the Division of Insurance, the Office of Travel and Tourism, and the Executive Office of Housing and Economic Development actively participated in the process. Working in six subcommittees --- Key Infrastructure, Human Health and Welfare, Natural Resources and Habitat, Local Economy and Government, Coastal Zone and Ocean, and Land Use --- the committee reviewed the science to describe "predicted climate change," identified vulnerabilities that could occur with predicted climate change, and evaluated strategies that could address these vulnerabilities. Each committee wrote a report that was to be converted into a chapter of an overall report which will be submitted to the legislature. The draft report is undergoing final review, editing, and design at EEA and should be available to the public shortly.

*Points of Contact: Kathleen Baskin, MA Executive Office of Energy and Environmental Affairs;
Kathleen.Baskin@state.ma.us/617-626-1012 and Vandana Rao, Ph.D., MA Executive Office of
Energy and Environmental Affairs; Vandana.Rao@state.ma.us/ 617-626-1248*

Rhode Island: The Coastal Resources Management Council (CRMC) in January 2008 adopted a new section in the Rhode Island Coastal Resources Management Plan entitled “Climate Change and Sea Level Rise” that includes findings based on best available science and policies to be implemented within the state coastal zone. Some of the major findings are: (1) the historic rate of sea level rise as measured in Newport, RI is approximately ten inches per century; (2) sea level rise is accelerating; and (3) we expect 3 to 5 feet of sea level rise by the end of this century (2100). In the interim, the CRMC has undertaken the following activities:

- Adopted shoreline change maps that depict coastal erosion rates over the past 70 years.
- Worked with the State Building Commissioner, the State Floodplain Coordinator, and the University of RI Coastal Resources Center-RI Sea Grant to facilitate the adoption of ASCE 24-05 and the inclusion of Coastal A zones into the RI State Building Code, and to educate the building trade practitioners and municipal officials.
- Adopted a 1-foot freeboard requirement above the FEMA FIRM BFE for construction in all Coastal A and V zones.
- Considering use of ACOE circular 1165-2-211 as a standardized method for evaluating public infrastructure projects located within the coastal zone.
- Engaged RI Sea Grant program to facilitate public education campaign on sea level rise to assist communities, municipal authorities and individuals located in vulnerable coastal areas. Also initiated a pilot project in a local community (North Kingstown) to assess sea level rise vulnerability to public and private properties and municipal infrastructure.
- Partnered with The Nature Conservancy, URI IGERT program and RI Sea Grant on workshop series on climate change impacts to coastal habitat. See: <http://www.ci.uri.edu/ciip/projects/c5/>
- Completing final edition of “RI Stormsmart Coasts” website with URI Coastal Resources Center & RI Sea Grant. See: <http://stormsmartcoasts.org/>
- Developing living shoreline policy and standards as an alternative to hardened shorelines in partnership with Save The Bay, a non-profit environmental advocacy group.
- Continuing to monitor and assess climate change and sea level rise conditions and science; proactively plan for and adapt to these changing conditions; and evaluate risk tolerances for various types of coastal activities.
- Partnered with Northeast Consortium to acquire LiDAR through federal grant award process to assist in development of predictive models for the potential impacts of sea level rise (consortium award \$1.4M).
- Collaborating with the Coastal Conservation Working Group in response to the New England Governor’s September 2009 directive to formulate a regional strategy to address joint goals in coastal conservation and land acquisition for climate change adaptation and habitat protection.
- Recent passage of RI legislation “Rhode Island Climate Risk Reduction Act of 2010,” which will require comprehensive community plans to include adaptation provisions for sea level rise and climate change, as well as the creation of a Climate Change Commission.
- The CRMC adopted the Ocean Special Area Management Plan in October 2010 to facilitate the siting of a utility-scale offshore wind farm to mitigate for and offset fossil fuel consumption in the production of electricity.

Point of Contact: Jim Boyd, RI Coastal Resource Management Council; jboyd@crmc.ri.gov/401-783-3370

Connecticut:

1) 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 working on a report of adaptation strategies to address the impacts identified in the first report and will be gathering public comment in February and March.

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

2) The Groton Coastal Climate Adaptation workshop series engaging federal, state and local governments in adaptation planning are completed, and DEP/ICLEI gave a presentation of results, recommendations and draft report at a well attended joint town council meeting in December. The final report will include information on workshops, progress, and lessons learned for other communities. Groton is also receiving a SOAR program intern thorough the community college system to assist in finishing their vulnerability assessment.

DEP/ICLEI through the EPA LISS and CRE has received additional funding to launch create ART, an Adaptation Resource Toolkit and has already formed a steering committee to guide what ART should be to be useful to all communities. The newly launched Connecticut Climate Network has started to bring together CT municipalities to see what their adaptation and mitigation needs are, as well as share what might be useful to contain in ART. The first meeting in November was well attended and received, and more are planned to assist communities in supporting and building on each other's climate initiatives.

DEP has also made multiple presentations including the University of Connecticut Adult Education Program, Climate Change Adaptation for Coastal Communities workshop in Rhode Island, the EPA Climate Change Adaptation Webcast and was featured at the Restore America's Estuary conference. Upcoming climate presentations include the STEM Conference, Thames River Valley Watershed Partnership and CT Conference on Natural Resources.

Office of Long Island Sound Program's internal climate change group has been examining internal policies and procedures and how they will interact with adaptation needs. Multiple interns have continued to assist with climate projects, and DEP staff to enhance coordination with other entities doing climate outreach. CT DEP co-hosted a Business Sustainability Summit at the Capitol with over 200 attendees.

Lastly, Sentinel Monitoring for Climate Change in Long Island Sound (LIS) (a bi-state and federal initiative) is finishing up their Strategic Plan, has surveyed NY and CT researchers and compiled the top seven indicators of climate change in LIS and the coastal ecoregions to assist in management and adaptation. These will be used to select the pilot monitoring programs to be funded. Additional funding received is also being used to partner with UCONN to create a website to list data, resources, researchers, etc to help archive and coordinate monitoring and resources.

Additional information on these efforts can be found in this October issue of Sound Outlook which was all on climate. Future issues will include a climate update feature.

http://www.ct.gov/dep/lib/dep/long_island_sound/soundout/sound_outlook_october_2010.pdf

*Point of Contact: Jennifer Pagach, CT Department of Environmental Protection;
Jennifer.Pagach@ct.gov/860-424-3295*

NROC Appropriations

Submitted by Kathleen Leyden, Maine



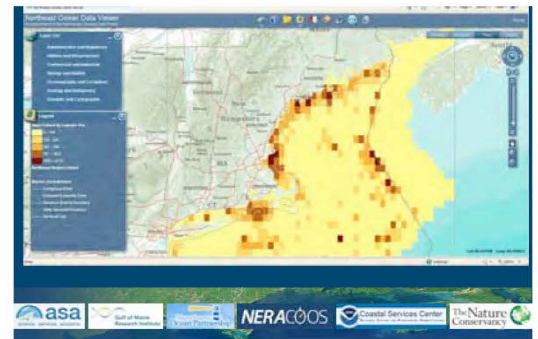
Collaborating on the Northeast's Most Pressing Coastal and Ocean Challenges

Maine-New Hampshire-Massachusetts-Rhode Island-Connecticut

The Northeast Regional Ocean Council is a dynamic state/federal partnership breaking new ground in the management of the region's coastal and ocean resources. Created by the New England Governors in response to the US Ocean Action Plan, NROC now works directly with the President's National Ocean Council on coastal and marine spatial planning, climate change, and other shared priorities. Guided by its *Coast and Ocean Action Plan*, NROC's 2010-2012 work plan includes collaborative state and federal projects that support three regional priorities, Healthy Ocean Ecosystems, Balanced Ocean Energy Development and Storm-Resilient Coastal Communities. NROC federal partners include NOAA, USEPA, USDOJ, USCG, USACOE and USDA. NROC has formal partnerships with the Gulf of Maine Council, the Northeast Regional Association of Coastal Ocean Observing Systems and the Northeast region's Sea Grant programs.

2010 Accomplishments

- **Northeast Data Portal** – The Northeast Ocean Data Portal is a web-based resource to help members of the coastal and marine community find, access and share geographic data and tools. This information helps scientists, policy makers, businesses and the public with natural resource and economic planning. NROC worked collaboratively with NGOs and NOAA to ensure the portal's relevance to decision-makers.
- **High Resolution Elevation Data** – NROC identified data needs and formed partnerships that resulted in new coastal elevation data for New England. Accurate elevation data helps to plan for and respond to coastal flooding and sea level rise -- saving lives, protecting infrastructure, and helping businesses bounce back after storms.
- **Ocean Planning** – NROC has committed to producing a preliminary “first in the nation” ocean plan within five years. The plan will help the region achieve its renewable energy goals, protect fishing areas, conserve important habitats and create predictability for the business community. NROC set the stage for this effort through workshops, interaction with the Ocean Policy Task Force, creation of partnerships with NGOs and academia, and development of a regional blueprint for CMSP.



Funding Needs 2011-2012

Although regional ocean councils have been recognized as key for improved coast and ocean management, federal investment has been lacking. NROC states request that Congress include \$20,000,000 for competitive grants for all Regional Ocean Partnerships in NOAA's budget without compromising other component programs such Coastal Zone Management. The Northeast Regional Ocean Council is well-positioned to successfully compete for these funds as proposed in both the President's FY 11 and FY12 budgets. Additionally, we strongly support the creation of a formal, sustained line item for Regional Ocean Partnerships in NOAA's budget and the authorization of a “New England Coasts” program office to support regional efforts in future years.

For more information contact: NROC 2011 State Co-Chair -- Ted Diers, Manager, New Hampshire Coastal Program. Ted.diers@des.state.nh.us; (603) 271-7940; <http://collaborate.org.nps.gov/nroc/default.aspx>



NROC would leverage federal funds to:

1. Complete Phase I of a New England Ocean Plan -- Budget -- \$4,000,000



MA Ocean Plan

- Involve the coastal and ocean user community in marine planning through a well-designed, inclusive and transparent stakeholder process.
- Develop twenty priority data sets needed for marine planning. Address critical gaps in information (fisheries data.)
- Complete an analysis of the region's ecological, social and economic characteristics and develop future use scenarios.

- Create preliminary definitions of ecologically and economically significant areas to form the basis for future work.
- Determine non-regulatory and regulatory approaches to implement the NROC ocean plan.



RI SAMP

2. Complete Selected Activities in NROC's Action Plan -- Budget -- \$500,000

- Host a regional seafloor mapping workshop and create a revised mapping strategy to guide future efforts.
- Build NROC's capacity (staffing and coordination, strategic planning, publications, workshops.)
- Build a strategy for conservation of regionally significant coastal areas using information on existing conservation priorities, coastal climate impacts, and criteria for regional significance. This project will serve to demonstrate a methodology and products to support conservation of high value coastal lands and marine resources that are most vulnerable to the impacts of climate change. A strategic coastal conservation plan will ensure that federal and other funds are allocated for regional priorities and that federal investments are made in consideration of climate change.



Seafloor Stellwagen Bank (USGS)

For more information contact: NROC 2011 State Co-Chair -- Ted Diers, Manager, New Hampshire Coastal Program Ted.diers@des.nh.gov; (603) 271-7940; <http://collaborate.csc.noaa.gov/nroc/default.aspx>

NROC Social Network Analysis Project:

Results Summary & Recommendations

Summary

Social network analysis (SNA) is a method that is used to collect, analyze, and graphically represent data that describe the relationships within and between groups of people or organizations. The SNA for NROC (conducted by MRAG Americas) was designed to study the individual and organizational relationships of its core members and members of its Standing Committees. The final report outlined how NROC members are connected to regional organizations, identified individuals serving as advisers on priority issue areas, and provided graphic representations of communication among NROC and committee members. Additionally, the report provides NROC leadership with feedback on the value of the organization to its members and why these members continue to participate.

Interpreting Results

The survey questions were designed to gather information on the level of interaction and engagement that occurs outside of quarterly NROC meetings, specifically related to NROC's three priority issue areas among NROC members and key partners. The survey population was a fixed number ($n=42$)² consisting of NROC core members and Standing Committee members. Questions were designed to collect information on communication flow and frequency. In some instances, the absence of a response was interpreted as a 'no opinion' or 'not applicable' response where appropriate. In the report, survey results are depicted as sociograms, charts or tables depending on how to best communicate survey output. In certain instances, a chart or table is more appropriate and direct than a sociogram. Some charts illustrate number of responses where others show percentages of total response for a given question.

Results and Recommendations

Key results from the survey are summarized below and are followed by recommendations.

Making NROC work for its members.

Maintain member satisfaction with NROC. Generally, members find high value in their participation with NROC. Greater than 80% of survey respondents gain valuable information through participation in NROC and have made valuable contacts; though more than half of the respondents are engaged as a requirement of their job position. The overwhelming majority (>60%) were asked to join NROC *and* feel they contribute substantially.

Match professional duties to NROC activities. All respondents agreed or strongly agreed that their professional expertise and participation in NROC furthers NROC's mission with respect to the three priority issue areas. Understanding what is important to NROC members in their day jobs will enable NROC to capitalize on the time, expertise, and resources devoted to an issue.

¹The original NROC contact list included 45 members; Steve Halterman, Mike Goetz and Christian Krahforst were removed as they are no longer active in NROC.

Recommendations:

- NROC may increase its value to members by better aligning the focus of Standing Committees with members' professional duties. For example, aligning the Ecosystem Health issue area with more specific professional duties may increase support and participation, and therefore overall satisfaction with NROC.
- It is important to have visibility and communication in outcomes, so that members can see the value of their directed contributions.
- Additionally, NROC should stay abreast of current work being conducted by members and consider its utility to NROC activities

Capitalize on interest in emerging issues. Members find value in using NROC as a venue for work on emerging issues. For example, results suggest that Ocean Energy and CMSP are not a primary focus for NROC members in their day jobs; however, there is a clear interest from NROC membership in Ocean Energy or CMSP discussions and activities.

Recommendations:

- NROC should continue to identify emerging issues and provide opportunities for members to engage in issues that are outside of their daily duties.
- NROC could benefit from having its members describe emerging issues of interest and focus time at future meetings on emerging issues.
- NROC needs to stay relevant to changing regional issues and nimble in being able to respond to them through dialogue and action.

Strategic engagement with organizations.

Capitalize on member affiliations. Within the Northeast region there are many organizations working on similar topics with respect to coastal and ocean issues. NROC is designed to facilitate regional coordination and partnerships between organizations where commonalities exist. To this extent, the survey sought to evaluate the level and frequency of respondent participation with a suite of associated relevant organizations. Results suggest that, out of the choices listed, NROC members are involved with and interact most with the Gulf of Maine Council on the Marine Environment (GOMC) and the Northeast Regional Association of Coastal Ocean Observing Systems (NERACOOS). This also confirms the need for the recent MOUs between NROC and these organizations.

The Nature Conservancy, Sea Grant, NEIWPCC, Massachusetts Ocean Partnership and New England Governors' Conference were other organizations that NROC members are involved with. This second tier of organizations can be used to inform future strategic partnerships.

Recommendations:

- Discuss commonalities with Tier 2 organizations and potential need for deliberate coordination.

Additional Questions for consideration in further analyses:

- Is NROC engaged with all the appropriate audiences and organizations?
- Should the survey have included the New England Fishery Management Council as an affiliate organization? (Note that no respondents wrote in that affiliation). This group has strongly pursued NROC and seeks a seat on both the NROC and RPB as a quasi-government entity.

Strengthen Standing Committees.

The **Ocean and Coastal Ecosystem Health Committee** does not have a set membership, instead functioning with a more ad hoc membership of regional stakeholders with specific interest in Committee activities. Active Committee participants were included in the survey. Results confirm that the co-chairs provide a central link for information sharing.

Recommendations for strengthening the Committee include:

- Reach out to the biology and ecology field of study for a more diverse set of active Committee participants.
- Engage NROC members with relevant expertise to participate in Committee activities.
- Capitalize on regional organizations working on ecosystem health issues by identifying complementary roles.
- Consider expanding membership to include individuals identified in survey as useful resources to issue area.
- Ask members with professional duties related to Ecosystem Health to provide recommendations for activities and resources.
- Consider narrowing the scope of the committee as other ROPs have done (e.g., water quality, restoration, clean beaches).

The **Coastal Hazards Resilience Committee** maintains a diverse membership of federal, state, and NGO representatives with backgrounds in climate, coastal resource management, geology, emergency management, and flood plain management. Results show the c-chairs as strong communication nodes, however, several members serve as additional communication nodes.

Recommendations for strengthening the Committee include:

- Reach out to the academic/research community to provide diversity on the Committee.
- Consider expanding membership to include individuals identified in survey as useful resources to issue area.

The **Ocean Energy Planning and Management Committee** has established a committee membership of regional stakeholders with interests in ocean energy. This is the only NROC Committee that has rotated co-chairs. Results confirm that the longest-serving co-chair acts as a primary node for communication.

This issue area is also closely tied with that of Coastal and Marine Spatial Planning, which has a newly formed ad hoc committee. The results show the current co-chair of the CMSP ad hoc committee acts as a strong node for communication among the ocean energy committee members. Given the overlap between committees and leadership in communicating information, NROC may want to consider combining the efforts of these two committees. Please note that at the time of this survey, the CMSP ad hoc committee did not exist.

Recommendations for strengthening the Committee include:

- Consider shifting co-chairs to include the other hub.
- Consider expanding membership to include individuals identified in survey as useful resources to issue area.
- Consider morphing this group into CMSP Committee and being deliberate about including ocean energy issues.

Additional Questions for consideration in further analyses:

- The question of whether or not all committees are equally active cannot be answered with the survey results, but could be determined anecdotally. We can also (anecdotally) look at appropriate representation across the region.
- Are the committees that are currently in place the right ones?
- Is there enough (or too much) information sharing occurring among committees?
- What are successful committee models from other regions?

Information sharing among members.

Build capacity of states for information sharing. While states are clearly sharing information,

members of federal agencies are currently the strongest information hubs in the NROC network. Federal members are providing a source of information as shown by the number of NROC members making contact for information. Additionally, federal members are also the most active members when reaching out for information within the network, as shown by the number of members being contacted. There are some potential explanations for the high level of federal communication including a commitment to federal-state partnership, role to translate top-down information such as National Ocean Policy and CMSP framework, and resources to support regional scale coordination. States clearly have information to share and gain through the NROC network; however, strong state communication was not expressed with this survey. Potential barriers to states sharing information include time constraints and competing priorities.

Recommendations:

- Provide more deliberate forums for states to share perspectives and information.
- Analysis of specific Committee communication patterns may show differences in state and federal information sharing.

Additional Questions for consideration in further analyses:

- What are the best ways to give and receive information among network participants?
- What tools are utilized for information gathering and sharing (e.g. Committee meetings, NROC meetings, NROC website, informal dialogue between meetings)?
- On what topics would states have high degree of information and valuable perspective to offer, perhaps more so than the federal partners? For example, the CMSP Committee is experiencing a strong state-state communication and perspective useful to feds on AOWEC issues and sharing state ocean planning experiences with each other and with feds. State initiatives are also guiding plans for CMSP at regional scale (process, products).

Engage Council members. NROC would be stronger with a fully engaged membership. Several Council members are on the periphery of the network, meaning there is not a strong level of communication between some Council members and the rest of the network. (Note: some of the Council members on the periphery of the network did not respond to the survey, so the results could only map communication to them, not from them.)

Recommendations:

- NROC leadership could begin to re-engage members through a letter and personal phone call. And identify reasons for lack of engagement.
- NROC leadership and members can jointly identify opportunities that match expertise and interest of members to regional priorities.

Build or repair connections. Understanding the weakness in representation provides an opportunity to build or repair connections to sectors important to NROC priorities. NROC has a strong link to coastal resource management through

its core membership. Other fields of study such as climate and geology have moderate representation while fisheries, flood plain management, and emergency management are weakly represented.

Recommendations:

- Consider if relevant expertise is missing from committees and seek out individuals to engage that encompass those areas of expertise.

2011 Ecosystem Health Indicators Conference (March 30-31 2011, Boston Fish Pier)

Submitted by Mel Cote, EPA

Background:

The Ecosystem Health Indicators Conference responded to a need identified by regional indicator programs to convene and share the details of their programs and discuss potential ways to work together (specifically in the areas of data acquisition and communications). This was the first meeting of its type since a series of two workshops on monitoring and indicators were convened by the Gulf of Maine Council and other regional organizations and agencies in 2003-2004. This conference also fulfilled an action item from the 2010-2012 work plan of the NROC Ocean and Coastal Ecosystem Health Committee.

The original concept, proposed by the organization Communication Partnership for Science and the Sea (COMPASS) and based on a similar effort in California, was to hold a workshop to develop a regional consensus on ocean ecosystem health for the northeast. The goal of the workshop evolved into its eventual format through interviews with various indicator programs, as well as a two-year planning process by a steering committee comprising COMPASS, Massachusetts Ocean Partnership (MOP), Environmental Protection Agency (EPA), University of Massachusetts Boston (UMB), Urban Harbors Institute (UHI), National Oceanic and Atmospheric Administration (NOAA), Ecosystem Indicator Partnership (ESIP), and the Massachusetts Executive Office of Energy and Environmental Affairs (MA EEA). The Gulf of Maine Council (GOMC), Northeast Regional Ocean Council (NROC), and the Northeastern Regional Association of Coastal Ocean Observing Systems (NERACOOS) also were consulted during the planning process.

The two-day conference was attended by three federal agencies, two state agencies, one state resource authority, four universities, five National Estuary Programs (NEPs), three National Estuarine Research Reserves (NERRs), and seven non-profit organizations. In addition to several plenary sessions, which included reports from about 15 indicator programs around the region, there were breakout sessions in which the conference participants were divided into two working groups, one on data and the other on communication. In the end, the two breakout groups collectively agreed on the need for a continued line of communication, collaborative space, or “community of practice” for indicator programs. MOP took the lead on drafting a proposal for this communication tool, as described below.

For More Information: <http://massoceanpartnership.org/science-stakeholders/overview/indicators-of-change/regional-indicator-coordination/conference-details/>

Virtual Community of Practice

Conference participants identified the following functions of a virtual community of practice for continued communication with one another:

1. To share resources such as data, photos, best practices and outreach materials
2. To continue and expand on conversations as a community of indicator practitioners
3. To develop common resources such as a data clearinghouse, a list of indicator programs and data sets, a set of indicator threshold standards, and a suite of educational and evaluative tools to communicate the importance of monitoring and measuring various components of ecosystem health to a range of audiences.
4. To facilitate joint planning, implementation and evaluation activities

In examining the options for addressing these needs, it was clear that a virtual means of hosting and sharing information, such as a website, would help meet the first two needs as well as provide a platform for sharing the common resources (need #3) as they are developed.

This “virtual community of practice” is in the beginning phase of development. The information below is offered as a starting point for conversations about the purpose, content, features, and structure that will be developed.

Statement of Purpose:

To provide a virtual space for indicator programs to access and share resources and communicate with other programs, with the ultimate goal of improving the ability of indicator programs to achieve their management goals by promoting collaboration and advancing the field of ecosystem health metrics.

Virtual Community of Practice

Communication

- Messaging tools
- Evaluation tools
- Best practices
- Communication services
- Templates
- Case studies
- Photos & visualizations

Data

- Directory of programs' indicators and datasets
- Links and/or tools for locating additional data and metadata

Indicator Development

- Tips for evaluating the cost-effectiveness of indicators and management activities
- Indicator selection template
- Indicator threshold standards
- Information on new indicator initiatives

Funding

- Funding opportunities
- Funding resources
- Grant or outreach packet

Community "Bulletin Board"

- Searchable wiki-type space for posting and replying to questions & comments; announcing events; and publicizing other news

Proposed NROC Seafloor Mapping Workshop

Sponsorship: NROC (via NOAA CSC), with possible additional funds and in-kind support from NOAA N Atlantic Regional Team, ME Coastal Program, NERACOOS, URI and USGS. Note : significant portion of funds needed for travel support

Timing: July, 2011

Format: Multi-day workshop with combination of presentations and problem-solving discussions.

Location: USGS has offered in-kind meeting space in Woods Hole

Audience: Combination of mappers (technical) and managers (application)

Steering Committee:

Bruce Carlise, MA CZM

Grover Fugate, RI CRMC

Matt Nixon, ME Coastal Program

John Weber, NROC

Betsy Nicholson, NOAA CSC

Bill Schwab/Susan Russell-Robinson, USGS

Sam DeBow/John King, URI

David Keeley, NERACOOS

Linda Mercer, GOMMI

Desired Outcomes

1. Participants gain a collective understanding of current seafloor mapping and related initiatives in the New England states, federal agencies and academia.
2. Develop a shared understanding of what seafloor maps are; the priority users and their applications; and the limitations of certain technologies and scales
3. Develop a strategy to adopt a regional classification standard. Understand existing frameworks that are applicable to New England, implications of adoption, methods to develop the strategy and define discrete next-steps
4. Develop a firm commitment and set in motion discrete steps to develop, maintain and promote a regional registry of planned and completed seafloor mapping.
5. Update the region's strategic mapping priorities (e.g., users and uses of map products, rationale/criteria for selecting priorities, etc.) to support map planning, appropriations and other funding development.

Exploring Ways to Enhance Regional Collaboration

Submitted by Kathleen Leyden

Synopsis -- The Gulf of Maine/Southern New England region, extending from the Bay of Fundy to Long Island Sound, has a growing institutional infrastructure to address regional and sub-regional ocean and coastal issues. Participants feel pride and ownership in these organizations, value existing relationships and have a track record of accomplishments. However, human and financial resources to support these efforts and the parent institutions (e.g., government agencies) are declining. There may be insufficient resources (people, expertise, time and money) for them all to prosper. While some interim efficiency measures have been taken, such as joint MOU's between organizations, it may be timely to explore ways to increase collaboration, productivity and to be even more efficient.

Situation – Examples of issues and concerns that have been raised over the past few years include:

- Multiple regional and sub-regional organizations have similar missions and engage many of the same people. These organizations have varying geographic scopes.
- Several organizations emerged in the past 5-7 years to address specific aspects of ocean management and a new “regional planning body” will be formed soon by the US National Ocean Council for ocean planning from CT-ME
- Many of the organizations lack legal mandates (i.e., no legislative imperative to act) which affects participation and the ability of participants to focus adequate time and resources on efforts, etc.
- There is insufficient, high-level political support (i.e., mid-level managers are engaged but Governors, Premiers and cabinet members may be only vaguely aware and may place emphasis on other, competing interests).
- There are anecdotes but few evaluations of outcomes that document results of some efforts. Absent this data, it is increasingly difficult for members to sustain (or increase) their resource commitments.
- Federal and state/provincial agency equality in decision-making is a hallmark.

Missions & People	Limited overlap of group missions	Significant overlap of group missions
Limited overlapping people	NEFMC RARGOM/BoFEP	NEP/LIS/ACAP NERR RI - RBW
Significant overlap of people	NERACOOS GOM Science Council NEODP	GOMC NROC RCOM

Options – Potential responses to this situation are numerous and span a continuum from incremental fixes to systemic change/organizational mergers.

Possible next steps

1. NERACOOS (May 10th), NROC (May 19th), and GOMC (June 15th) arrange for discussion of the situation at their spring meetings and determine if they want to explore these issues in greater detail. If so, each designates three delegates to represent their interests in preliminary discussions and to report-back with options.
2. July – September – An independent, neutral facilitator (provided by contract through the Maine State Planning Office) organizes, leads and records 2-3 conference call discussions of the delegates; reviews and summarizes seminal reports that would inform these deliberations; conducts a limited number of phone interviews with key individuals; offers some organizational options for the delegates to refine; and prepares a report to the organizations for their consideration.
3. September – October – Delegates report-out to their respective organizations and determine if there is interest in continuing the deliberations.

NERACOOS Briefing for the Northeast Regional Ocean Council

May, 2011

NERACOOS FY11 proposed activities (June 2011-May 2012)

NERACOOS received preliminary notification from the US Integrated Ocean Observing System® office that it will be awarded approximately \$1.76M in FY11 funds, which should be available in June, 2011.

The NERACOOS Strategic Planning and Implementation (SPI) team updated the scope of work for this FY11 award. The funding will support the following activities during the funding period:

- Coordinated regional management, outreach, education and communications by the NERACOOS office
- Operations and maintenance of 11 oceanographic buoys and 1 coastal monitoring station in the region including 8 buoys in the Gulf of Maine and 3 in Long Island Sound
- Operations and maintenance of 3 High Frequency Radar (HF Radar) stations along the Northeast Coast
- Operations and maintenance of the Northeast Coastal Ocean Forecast System the regional wave forecast system
- Operations and maintenance of the NERACOOS data management and communications system including the NERACOOS website (www.neracoos.org)
- Harmful Algae Bloom (HAB) monitoring and satellite detection effort in the Bay of Fundy
- Real-time telemetry for Narragansett Bay Fixed-Site Water Quality Monitoring Network
- Monitoring of nutrients through the Atlantic Zonal Monitoring Program

More details can be found at www.neracoos.org

NERACOOS Highlights

The NERACOOS Five Year Strategic Plan is posted on the NERACOOS website.

NERACOOS will be launching a new real-time Right Whale information product. Through collaboration with Cornell University, the NERACOOS website will soon report recent whale detections from the Right Whale listening network in Massachusetts Bay.

The NERACOOS Northeast Coastal Ocean Forecast System (NeCOFS) is preparing to implement the Scituate inundation forecast system, which is a prototype inundation forecast system for emergency managers. NeCOFS has also been used to help Cape Wind to design the foundation for the wind energy plant in Nantucket Sound, and to investigate a spill of plastic disks from the Hooksett, NH waste water treatment plant.

NERACOOS, MOP, ASA, GMRI, NOAA CSC, and TNC are leading the development of the Northeast Ocean Data Portal to support regional Coastal and Marine Spatial Planning. NERACOOS Executive Director, Ru Morrison, has been invited to present the portal development effort at the national CMSP meeting in June.

Woods Hole Oceanographic Institution (WHOI) has deployed the first real time Harmful Algal Bloom detection sensor off the New Hampshire Coast. NERACOOS and WHOI collaborated in obtaining one of these sensors to help support regional HAB detection.

Over the next year, NERACOOS will be developing a regional observing system build out plan in response to the ICOOS act. The plan will be issue driven and designed to fulfill the data and product needs for regional and national ocean policy priorities.