

Northeast Regional Ocean Council | Ocean and Coastal Ecosystem Health Committee

2024-2028 Workplan

Background on the Northeast Regional Ocean Council

NROC is a Regional Ocean Partnership that was established in 2005 by the Governors of Connecticut, Rhode Island, Massachusetts, New Hampshire, Maine, and Vermont to coordinate around regional priorities and cross-jurisdictional ocean and coastal management issues. Federal agencies have engaged as equal partners with the states since the inception of NROC. In addition to its charter membership, NROC welcomes and includes voluntary participation from other federal and state agencies, Tribes, the New England Fishery Management Council, and other regional partners, including ocean industries, academia, and environmental organizations. NROC works to promote inclusive engagement that is critical to advance complex coastal and ocean issues throughout the region.

Regional priorities for NROC include climate change, coastal hazards and resilient communities, ecosystem health and biodiversity, improving ocean data and science, and proactive coordination around ocean management and regulatory decisions. We address regional priorities through three committees: Ocean Planning, Coastal Hazards Resilience, and Ocean and Coastal Ecosystem Health.

NROC's Ocean and Coastal Ecosystem Health Committee

The Ocean and Coastal Ecosystem Health (OCEH) Committee is one of three Northeast Regional Ocean Council (NROC) standing committees. This committee was established to help identify and coordinate regional activities to preserve and restore ecosystem health in New England. As recommended in U.S. federal statutes and resolutions adopted by the New England Governors and Eastern Canadian Premiers, ecosystem health and the ability to sustain those services are derived from healthy coastal ecosystems. NROC and the OCEH Committee believe that we have the best prospects for integrating management efforts that crosscut most if not all of the most pressing issues related to ocean and coastal ecosystem health. The OCEH Committee works in coordination with other NROC committees to incorporate national priority objectives for supporting data and science, spatial characterizations, and program integration that will foster better decisions and management that can help achieve the overarching goal of healthy and resilient coastal and ocean ecosystems.

Goal: Enhance region-wide coordination and collaborative actions on shared ocean and coastal ecosystem health priorities.

Need for OCEH Action: The U.S North Atlantic is a series of complex ecosystems with abundant resources and vibrant coastal communities. These valuable ecosystems are vulnerable to a number of pollution impacts and warming. There are numerous organizations and agencies working to protect and restore coastal and ocean ecosystem health in New England. NROC will enhance collaboration, advance collectively-determined priority regional actions, and articulate a common vision for management and restoration. Actions to advance management and restoration include: collaboration to advance research and monitoring and facilitate the accessibility of data and decision support tools needed to support restoration, conservation, and resilience of coastal habitats.

Priority Action – 1 – OCEH: Strengthen Regional Coordination, Governance, and Communication

Action 1.1 – Regularly Convene OCEH Meetings

The OCEH will hold regular meetings to identify priorities and emerging issues, ensure communication and coordination across agencies and jurisdictions, provide communication and coordination opportunities for funded projects in the region, and create opportunities for public input.

Action 1.2 – Establish Workgroups or Subcommittees to Support Regional Restoration, Conservation, and Resilience of Ocean and Coastal Habitats

The OCEH will establish workgroups and subcommittees as needed to support ocean management and planning priorities that are identified through OPC meetings. Workgroups and subcommittees will be composed of individuals with experience in the topic. Currently, there are work groups and subcommittees on Blue Carbon (see Priority Action 2.1), supporting data development for the Portal (see Priority Action 1.3, and Northeast Ocean Data Portal workplan), coordinating the Integrated Sentinel Monitoring Network (Priority Action 2.3), ocean acidification (see Priority Action 2.4), and advancing understanding of seafloor and coastal habitats (see Priority Action 3).

Action 1.3 – Provide Guidance on Data Standards and Visualization to Promote Broader Regional Utility

NROC will provide a forum for discussion to agree upon data standards and visualization related to ocean and coastal ecosystem health. This action is in coordination with other NROC committees and OCEH subcommittee work as well as the Northeast Ocean Data Portal team (see annual Northeast Ocean Data Portal workplan for additional info). Current work is ongoing for blue carbon and habitat classification and ocean mapping. Ocean acidification work within the OCEH Committee will also result in products on the Northeast Ocean Data Portal. Coordination with the Integrated Sentinel Monitoring Network (ISMN) will occur as many potential themes within ISMN have products on the Data Portal outlining status and change over time. This action could include workshops, surveys and/or formation of an expert panel. Products will be available on the Northeast Ocean Data Portal.

Action 1.4 – Work to Advance Bipartisan Infrastructure Law/Infrastructure Investment and Jobs Act Projects

NROC staff in coordination with OCEH co-chairs, subcommittees, and members will advance OCEH BIL/IJA projects throughout the region. Projects related to blue carbon, Integrated Sentinel Monitoring Network, ocean acidification, and seafloor mapping are currently being advanced and NROC staff will be applying for additional projects to advance OCEH work.

Priority Action – 2 – OCEH: Continue to Update Monitoring Plans and Assessments and Link Research and Monitoring to Management Decision Making

Action 2.1 – Blue Carbon

The OCEH Committee will work to promote regional seagrass and marsh resiliency through coordination and convening of experts, understanding existing seagrass and salt marsh conditions, coordination of mapping and migration modeling of coastal vegetation, blue carbon mapping and modeling, and integration of spatial products on the Northeast Ocean Data Portal.

Convene an Expert Coastal Vegetation and Blue Carbon Workgroup (Action 2.1.1)

NROC will continue to support the New England Blue Carbon Workgroup and project partners, including highlighting blue carbon mapping methodology and results, possible implications, and future needs.

Update Coastal Vegetation and Blue Carbon Products on the Northeast Ocean Data Portal (Action 2.1.2)

Building off the EPA Region 1-supported Blue Carbon project that added updated eelgrass and salt marsh habitat and carbon stock data to the Northeast Ocean Data Portal as well as the *Blue Carbon Reservoirs from Maine to Long Island NY* EPA Region I Report, the Blue Carbon Workgroup will work to revise and update the analysis using additional and/or updated input data sets, advance revisions to carbon stock estimates related to blue carbon, identify and update methodologies for blue carbon and coastal vegetation assessment throughout the region, and continue to regularly update coastal vegetation and blue carbon data products in the Northeast Ocean Data Portal.

Develop a Pilot Retrospective Analysis of Blue Carbon Change Over Time (Action 2.1.3)

Building off the EPA Region 1-supported Blue Carbon project, the Blue Carbon Workgroup will develop a pilot analysis of blue carbon change over time for a subset of the New England region where temporal coastal vegetation and carbon data are particularly robust. The purpose of this pilot analysis is to examine how carbon reservoirs may change over time due to coastal vegetation habitat loss. Learning from the pilot analysis could be used to inform an expanded analysis or an extrapolation of results to the full New England region.

Action 2.2 – Marsh Migration

The OCEH Committee will work to promote regional seagrass and marsh resiliency through understanding existing seagrass and salt marsh conditions, implementation of seagrass and salt marsh management techniques, and evaluation of project use and effectiveness in New England Coastal Zone Policy.

Support of Marsh Migration Projects in New England (Action 2.2.1)

Building on previous NROC marsh migration work that has included workshops and development of a guidance document, OCEH will work to distribute guidance, implement the recommendations, and continue the dialog among practitioners. Meetings of the technical and policy community of practice around marsh migration will be held as needed to move forward the state of understanding of New England marshes as sea level rises.

Establish a Regionally Consistent Methodology for Coastal Vegetation Mapping, Monitoring and Data Management to Support Coastal Vegetation Conservation and Restoration in New England (Action 2.2.2)

Through the Blue Carbon Workgroup, share current practices and advance consistent coastal vegetation mapping and monitoring methodologies and data management practices. Advance consensus-based mapping and monitoring methods, define regional sentinel sites, and develop a database through publication building on the first *Blue Carbon Reservoirs from Maine to Long Island NY* EPA Region I Report.

Explore next steps and evaluate effectiveness of projects (Action 2.2.3)

Consider and explore relevant marsh management techniques to improve salt marsh resiliency. This may include conducting similar projects at other locations in the region using tools currently under development. As projects in the region move forward, promote measurement, monitoring and evaluation of the effectiveness of the techniques used then translate and communicate lessons learned throughout the region. Funding opportunities to support this work will be sought after by member agencies and partner institutions.

Action 2.3 – Update and Assess the Integrated Sentinel Monitoring Network Plan for Ecosystem Change in Northeastern Ocean and Coastal Water

NROC will work closely with NERACOOS and other partner organizations to update and assess the *Science and Implementation Plan for an Integrated Regional Climate Change Sentinel Monitoring Network for the Northeast Region* (ISMN) from the Canadian Maritimes to Long Island Sound. The ISMN was envisioned as a regional entity with infrastructure that will sustain an adaptive sentinel monitoring network, with five major functions: 1) provide coordination support for existing observing activities; 2) further develop, integrate, and coordinate regional capacity for data management and distribution; 3) enhance and expand current monitoring efforts by supporting needed supplemental measurements; 4) create and sustain a data management, analysis and interpretation system and communication strategy to inform researchers, managers and the public; and 5) support an integrated, ecosystem-based management

framework for adaptive responses to change. Since the development of the ISMN Science and Implementation Plan, numerous efforts through NROC, RWSC, NERACOOS, and other partners have been established to support evaluation and provide products characterizing ecosystem change, including through the Northeast Ocean Data Portal. NROC and NERACOOS will assess these existing efforts as it updates a vision for a revised ISMN.

Regularly Convene the ISMN Oversight Committee (Action 2.3.1)

Inventory and Review Monitoring, Data Development, and Reporting for Each Sentinel Indicator (Action 2.3.2)

In coordination with NERACOOS, NROC will engage in an inventory and review monitoring, data, and reporting of sentinel indicators to better understand progress developing the ISMN and where additional effort may be necessary.

Identify Other Regional or Basin-wide Monitoring and Assessment Programs to Better Understand Existing Efforts in the Region and Where Additional Coordination May be Necessary (Action 2.3.3)

Develop a Report that Outlines Options and Summarizes Progress Developing the ISMN (Action 2.3.4)

In coordination with NERACOOS, NROC will write a report that summarizes options and progress for ISMN identifying priorities for the next three to five years, and recommends updates to the ISMN Science and Implementation Plan

Action 2.4 – Northeast Coastal Acidification Network

NROC will work closely with NERACOOS and other partner agencies and organizations to expand the capacity of NECAN to improve our scientific understanding of ocean and coastal acidification and work with stakeholders to adapt to the effects of acidification.

Serve on NECAN Steering Committee to Help Ensure NROC interests are Represented (Action 2.4.1)

NROC will participate in regular steering committee conference calls, periodic meetings, technical workshops, and stakeholder outreach workshops.

Facilitate Funding to Support Monitoring and Research on Ocean and Coastal Acidification (Action 2.4.2)

Member agencies and institution will try to identify and secure funding through relevant programs to support these activities.

Facilitate Funding to Support Outreach and Education to External Stakeholders from Ocean-dependent Industries, such as the Shellfish Aquaculture and Fishing Industries (Action 2.4.3)

Member agencies and institution will try to identify and secure funding through relevant programs to support these activities.

Contribute to Northeast Regional Component of the National CAN Vulnerability Assessment (Action 2.4.4)

NROC will contribute to the CAN vulnerability assessment and support development of a regional OA action plan that builds from the assessment outcomes.

Action 2.5 – Emerging Topics

NROC will focus on monitoring and assessment but will work to understand and provide updated tools and products for informed management decisions. Emerging topics such as water quality and hydrodynamic modeling will be considered as emerging topics and needs within the region.

Action 2.6 -- Identify Opportunities to Ensure OCEH Tools, Assessments, and Best Practices are Incorporated into State and Local Decision Making

The OCEH will promote trainings and outreach, identify opportunities in the region to enhance blue carbon, support marsh migration, use ocean acidification assessments and data, and support tool development for emerging topics (Action 2.5).

Priority Action – 3 – OCEH: Enhance data collection, integration, and dissemination

Action 3.1 – Habitat Classification and Ocean Mapping

Convene an Expert Habitat Classification and Ocean Mapping Subcommittee and Coordinate with Other NROC Initiatives

NROC will continue to convene, host, and staff the Habitat Classification and Ocean Mapping (HCOM) subcommittee workgroup to strengthen collaboration between and compatibility of habitat classification methods and efforts in the New England Region. The work of HCOM will be continued through shared knowledge and regional mapping coordination to effectively meet mapping needs in New England, particularly Northeast submerged lands and Outer Continental Shelf Lands. HCOM will coordinate with NROC's Ocean Planning Committee where relevant and with the Submerged Archeological Resources Workgroup. HCOM will also link information and data products to the Regional Wildlife Science Collaborative for Offshore Wind and Gulf of Maine offshore wind work.

Regional Seafloor Mapping Planning Coordination (Action 3.1.1)

Through the use of SeaSketch and other partnerships, NROC partner members will continue to share their mapping plans and needs in an effort to find opportunities to leverage resources among NROC partners working in New England. HCOM and NROC staff will develop a mapping prioritization report that summarizes regional mapping priorities and management needs. HCOM will convene regional partners to review a draft prioritization report in a workshop before finalizing the report. The prioritization report will be used to identify mapping priority gaps and direct future resources in the region, where applicable and funding allows.

Develop a habitat classification community of practice (Action 3.1.2)

HCOM will foster ongoing community activities for sharing techniques around habitat classification mapping using CMECS. Engagement and collaboration will include:

- Peer to peer learning and workshops to expand knowledge and collaboration to build on regional best practices and foster enhanced understanding and management of New England waters.
- Encourage the requirement of offshore wind companies to map seafloor resources using CMECS and to develop platforms for sharing offshore wind energy data more broadly. Support companies through a workshop to better understand CMECS application in the Gulf of Maine.
- Share revised CMECS classification approach used in the Gulf of Maine with regional and national partners. Share methods used in the HCOM Gulf of Maine Geofom Project (especially with regard to future updates using higher resolution data), through presentations and workshops.
- Improve ability to utilize data in different habitat classification schemes through creating crosswalks to CMECS.

- Connect with efforts going on in other regions (e.g., Great Lakes Aquatic Framework) for cross regional mapping learning opportunities.

Identification of new resources and collaboration opportunities (Action 3.1.3)

HCOM members will actively seek new regional financial resource opportunities and help to facilitate partnerships and collaborations between partners with regards to Habitat Classification and Ocean Mapping initiatives in the Northeast, looking specifically at how mapping and classification can continue to support ocean planning, resiliency, and ocean and ecosystem health.

Support best practices and evolution of data collection (Action 3.1.4)

- Improved methods for the collection of data
- Evaluating data collection tools (e.g., eelgrass) through a workshop
- Facilitating discussion on new mapping questions (e.g., biological mapping).
- Identify and engage partners to explore moving from mapping to habitat assessment.

Foster development of innovative products that advance regional ocean science and planning (Action 3.1.5)

Develop derived datasets and habitat maps for the Gulf of Maine, to improve management decision making. Products will be adaptable as new data becomes available.

Action 3.2 – Coastal Mapping

HCOM will evaluate coastal mapping priorities outlined in the Regional Seafloor Mapping Prioritization Report and work to advance coastal mapping priorities by identifying priority data gaps and working to align funding, where applicable.