



NROC Meeting
Thursday, April 13, 2023
9:00 AM – 3:30 PM

NH Department of Environmental Services
222 International Drive, #175, Portsmouth, NH

Meeting Packet

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Northeast Regional Ocean Council (NROC) Meeting Agenda Thursday, April 13, 2023 NHDES, 222 International Drive, #175, Portsmouth, NH 03801	
9:00 AM	Welcome and Overview of Meeting Agenda <i>NROC Co-Chairs: Jeff Willis, RI Coastal Resources Management Council (RI CRMC); and Rick Bennett, U.S. Fish and Wildlife Service (US FWS)</i>
9:05 AM	Updates from NROC Executive Committee, Federal Partners, and State Partners <i>Jeff Willis, RI CRMC; Rick Bennett, US FWS; and NROC state and federal partners</i> <ul style="list-style-type: none"> • NROC Co-Chairs and Executive Committee Updates (10 min) <ul style="list-style-type: none"> ○ Welcome Amy Trice, Senior Program Director • Key highlights from NROC federal partners (20 min) (<i>BOEM, pp. 8-11, NOAA OCM, pp. 12-13</i>) • Key highlights from NROC state partners (25 min)
10:00 AM	NROC Partner Updates and Opportunities for Collaboration <ul style="list-style-type: none"> • Northeast Sea Grant Consortium, <i>Gayle Zydlewski, Maine Sea Grant (5 min) (p. 14)</i> • Northeast Regional Association of Coastal and Ocean Observing Systems (NERACOOS), <i>Tom Shyka (5 min)</i> • Gulf of Maine Council, <i>Prassede Vella, MassBays (5 min) (pp. 15-16)</i> • New England Federal Partners, <i>Rick Bennett, US FWS (5 min)</i>
10:20 AM	Regional Wildlife Science Collaborative (RWSC) <i>Emily Shumchenia, RWSC Director</i> <ul style="list-style-type: none"> • Update regarding RWSC development of an Integrated Science Plan for Wildlife, Habitat, and Offshore Wind Energy in the U.S. Atlantic Waters. (<i>RWSC Fact Sheet, pp. 17-18</i>)
10:50 AM	Beneficial Uses of Dredged Material <i>Larry Oliver, US Army Corps of Engineers (USACE)</i> <ul style="list-style-type: none"> • Recent developments in the USACE on the beneficial uses of dredged materials.
11:20 AM	Seafloor Mapping in the Gulf of Maine and Long Island Sound <ul style="list-style-type: none"> • Gulf of Maine Seascapes Project Update (20 min) <i>Mark Finkbeiner, NOAA; Todd Callaghan, MA CZM; and / or Dan Sampson, MA CZM - NROC Habitat Classification and Ocean Mapping (HCOM) Subcommittee, NROC Ocean and Coastal Ecosystem Health Committee</i> • Long Island Sound Seafloor Mapping Initiative Update (20 min) <i>Brian Thompson and Kevin O'Brien, CT Dept. of Energy & Environmental Protection</i> <p><i>Session will include Q&A and discussion about opportunities for collaboration and knowledge sharing across the Northeast region.</i></p>
12:00 PM	Lunch Break (lunch provided on site)

1:00 PM – 3:15 PM	Special Session: Opportunities for NROC and National Estuary Programs (NEP) to Collaborate on Infrastructure Investment and Jobs Act (IIJA) Funded Projects
1:00 PM	<p>NROC IIJA Funded Projects <i>Nick Napoli, NROC Executive Director</i></p> <ul style="list-style-type: none"> • Overview and updates regarding NROC Committee IIJA funded projects • Introduce NROC Committee Co-Chairs and staff <p style="text-align: right;"><i>(Detailed summary of IIJA funded NROC projects, pp. 19-26)</i></p>
1:20 PM	<p>NEP IIJA Funded Projects <i>Regina Lyons, US EPA</i></p> <ul style="list-style-type: none"> • Overview of IIJA funding for NEPs in the Northeast • Brief IIJA funded project highlights for Narragansett Bay and Buzzards Bay NEPs
1:40 PM	<p>Highlights from NEPs in the Northeast Region <u>Facilitators:</u> <i>Nick Napoli, NROC; and Regina Lyons, US EPA</i></p> <p>NEP leaders from around the region will provide an overview of IIJA funded projects, priorities, and opportunities for collaboration with NROC. Each presentation will include time for Q&A and discussion about opportunities for collaboration.</p> <ul style="list-style-type: none"> • Piscataqua Region Estuaries Partnership (20 min) <i>Kalle Matso, Director; and Fay Rubin, Special Projects Manger</i> • Long Island Sound Study (20 min) <i>Evelyn Spencer, EPA Region 1 Program Coordinator, Long Island Sound Study</i> • Massachusetts Bays National Estuary Partnership (20 min) <i>Pam DiBona, Director</i> • Casco Bay Estuary Partnership (20 min) <i>Curtis Bohlen, Director</i> • Discussion (15 min) <i>Additional time to discuss opportunities for collaboration across the region.</i>
3:15 PM	<p>NROC Meeting Wrap Up and Next Steps <u>NROC Co-Chairs:</u> <i>Jeff Willis, RI CRMC; and Rick Bennett, US FWS</i></p>
3:30 PM	Adjourn

Access for Virtual Participation

Topic: NROC Spring 2023 Meeting

Time: April 13, 2023 09:00 AM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/87175422769?pwd=emhIRHhkUWltdG9CQzUzak05eXlhcz09>

Meeting ID: 871 7542 2769

Passcode: 273620

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Passcode: 273620

Find your local number: <https://us02web.zoom.us/j/87175422769>

NROC Funding from Infrastructure Investment and Jobs Act

1. NOAA-NOS-OCM-2022-2007464

- Project: *Implementation and Coordination of Coastal and Ocean Management Priorities for the Northeastern United States via the Northeast Regional Ocean Council*
- Total Award: \$3,924,563
 - January 1, 2023 – November 30, 2023: \$1,962,144
 - December 1, 2023 – November 30, 2024: \$1,962,419
- Leads: NROC (via Coastal States Stewardship Foundation as fiscal sponsor). Projects are led by NROC Executive Committee and Coastal Hazards Resilience Committee (CHRC), Ocean and Coastal Ecosystem Health Committee (OCEH), and Ocean Planning Committee (OPC)
- Funding Period: January 2023 - November 2024
- Project Details: See *pp. 19-26* for a summary of proposed projects and partners

Ocean Planning Committee

2. MA Clean Energy Center

- Project: *Developing Standard Approaches to Synthesizing, Visualizing, and Disseminating High-Resolution Acoustic and Imagery Data to Advance Benthic Mapping in the Wind Energy Areas of the Northeast*
- Award: \$163,850 (includes \$49,050 for NROC stakeholder and work group coordination and integration of products into the Northeast Ocean Data Portal)
- Lead: Inspire Environmental
- Funding Period: January 2021 – March 2023

3. Bureau of Ocean and Energy Management

- Project: *Operations and maintenance of the Northeast Ocean Data Portal*
- Award: \$250,000
- Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor)
- Funding Period: September 2022 – September 2023

4. FY2022 NOAA Regional Ocean Data Sharing/Regional Ocean Partnership Funding

- Project: *Update fishing, marine life, recreation, maritime, sand resource, and other data on the Northeast Ocean Data Portal*
- Award: \$204,000
- Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor)
- Funding Period: July 2022 – September 2023

5. Maine Governor's Energy Office

- Project: *Data, Mapping, and Gulf of Maine Portal for Offshore Wind*
- Award: \$45,000
- Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor)
- Funding Period: March 2022 – February 2023

6. Funding for Regional Wildlife Science Collaborative for Offshore Wind
(Shared with the Mid-Atlantic Regional Council on the Ocean)

The Regional Wildlife Science Collaborative for Offshore Wind (RWSC) is funded through a mix of member dues, in-kind contributions, projects, and research funding. To date in FY 2023 (July 1 2022 – June 30 2023), RWSC received \$495,675, which includes carryover from FY 2022 and \$370,000 in membership dues from 24 individual entities (states, eNGOs, offshore wind companies). RWSC expects a similar level and mix of operational funding for FY 2024, in addition to funds to support staff time from existing projects and research (listed below). In addition, RWSC is building capacity and raising funds to support a Research Fund in FY 2024.

- Power analysis for optimal design of a Passive Acoustic Monitoring network in the Atlantic Ocean – Bureau of Ocean Energy Management
- Developing a baleen whale monitoring plan for Virginia’s Wind Energy Area – Virginia Department of Environmental Quality
- Wildlife and Offshore Wind (WOW): A systems approach to research and risk assessment for offshore wind development from Maine to North Carolina – Duke University – Department of Energy, Bureau of Ocean Energy Management

Offshore Wind Updates from Bureau of Ocean Energy Management (BOEM) and Department of the Interior (DOI) – April 2023

Submitted by Lean Bullin, BOEM

April 7, 2023

BOEM Contact: [Lissa Eng](#), 202-531-0667

You're Invited: Gulf of Maine Intergovernmental Renewable Energy Task Force Meeting

Dear Stakeholder,

The Bureau of Ocean Energy Management (BOEM) will host its third Gulf of Maine Intergovernmental Renewable Energy Task Force meeting May 10-11, 2023, in Bangor, Maine.

The purpose of the meeting is to update task force members and the public on BOEM's commercial and research offshore wind energy planning activities and to discuss next steps for the Gulf of Maine, including a Call for Information and Nominations.

Established in 2019, this task force is composed of Federal, Tribal, state, and local government officials. It is tasked with facilitating the coordination of renewable energy planning activities on the Outer Continental Shelf in the Gulf of Maine. It serves as a forum to discuss potential issues and concerns, as well as exchange data and information about ocean resources and uses.

The public is encouraged to attend this meeting where there will be opportunity for public comment on both days. Additional information about the meeting will be available on BOEM's Gulf of Maine web page: <https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine>.

###

Comment Period Extended for SouthCoast Wind Draft Environmental Impact Statement

Release Date: 04/03/2023

Contact: [Lissa Eng](#), (202) 531-0667

On Feb. 13, 2023, BOEM [announced](#) the availability of a draft Environmental Impact Statement (DEIS) for the proposed SouthCoast Wind wind energy project offshore Massachusetts. The [DEIS was posted online](#) and on Feb. 17, BOEM published the [Notice of Availability in the Federal Register](#), initiating the formal start of a 45-day public comment period, originally scheduled to end Apr. 3, 2023.

This comment period has now been extended by 15 calendar days. BOEM is [extending the comment period](#) based on requests from the public. BOEM will continue to receive public comments on the DEIS through **11:59 p.m. Eastern Time on Tuesday, Apr. 18, 2023**. Public comments and input are critical in informing BOEM's decision-making process.

BOEM's DEIS for the proposed SouthCoast Wind Offshore Wind Farm analyzes the potential environmental impacts of the proposed project as described in the SouthCoast Wind COP and the alternatives to the proposed plan for constructing and operating a wind energy facility offshore Massachusetts.

For more information, including instructions for commenting, go to: <https://www.boem.gov/renewable-energy/state-activities/southcoast-wind-formerly-mayflower-wind>.

We look forward to hearing from you.

-- BOEM --

The Department of the Interior's Bureau of Ocean Energy Management (BOEM) is responsible for America's offshore energy and mineral resources. The bureau promotes energy independence, environmental protection and economic development through responsible, science-based management of energy and mineral resources on the U.S. Outer Continental Shelf.

Interior Department Announces Start of Turbine Construction for Commercial-Scale, Offshore Wind Energy Project in Federal Waters

Project has capacity to generate 130 megawatts of wind energy, enough to power over 70,000 homes and businesses

Date: Monday, April 3, 2023

Contact: Interior_Press@ios.doi.gov

WASHINGTON — In a major milestone towards meeting the Biden-Harris administration’s goal to deploy 30 gigawatts of offshore wind energy by 2030, the Department of the Interior today announced that the Bureau of Safety and Environmental Enforcement (BSEE) has completed its review of critical design and installation reports for the South Fork Wind project, clearing the way for the start of turbine construction offshore Rhode Island and New York. This will be the first commercial-scale, offshore wind energy project to start turbine construction in federal waters in the United States.

The Biden-Harris administration is taking an [all-of-government approach](#) toward its ambitious renewable energy goals that will create jobs to support families, boost local economies, and help address economic injustice.

“Two years ago, President Biden issued a bold challenge to move America towards a clean energy future. The Interior Department answered that call and is moving rapidly to create a robust and sustainable clean energy economy with good-paying union jobs,” said **Secretary Deb Haaland**. “As we celebrate the advancement of the South Fork Wind project, we look forward to continued progress that will help communities across America be part of the climate solution.”

“Today’s announcement is a significant milestone for the Biden-Harris administration and the Department’s progress in offshore wind development on the Outer Continental Shelf,” said **BSEE Director Kevin Sligh**. “The Bureau of Safety and Environmental Enforcement has the important responsibility of reviewing renewable energy projects and is committed to ensuring they will be built and operated in a safe and environmentally sustainable manner.”

With BSEE’s completion of the 60-day review of the project’s Facility Design Report and Fabrication and Installation Report, South Fork Wind will now begin the historic step of constructing and installing offshore wind turbines on the Outer Continental Shelf, with an estimated completion date of summer 2023.

The South Fork project, which was [approved](#) by Interior’s Bureau of Ocean Energy Management (BOEM) in November 2021, will directly support approximately 165 jobs over the two-year construction period and approximately 10 long-term jobs during the operations and maintenance period. The project will also support hundreds of jobs in the supply chain and service industries, producing economic benefits from the clean energy transition for onshore communities.

In January 2023, the Department [announced](#) the transfer of regulations governing offshore renewable energy activities — including workplace safety and environmental compliance — from BOEM to BSEE.

###

April 6, 2023

BOEM Contact: [John Callahan](#), 907-334-5208

YOU'RE INVITED: Standing Committee on Offshore Wind Energy and Fisheries

Dear Stakeholder -

Please join BOEM Director Liz Klein for the first public meeting of the National Academies of Science, Engineering and Medicine's **Standing Committee on Offshore Wind Energy and Fisheries**.

WHEN: April 13, 2023 (3 p.m. – 4:30 p.m. ET)

WHERE: Virtual Webcast – [Registration Instructions](#)

All are welcome and encouraged to attend the webcast. The virtual open session will introduce the committee to the public and discuss the standing committee goals.

The National Academies require advance registration. Meeting details, including a webcast link, registration instructions and a full agenda, will be available via the Registration Instructions above.

Established at BOEM's request, this new standing committee will help BOEM expand and improve its engagement and communication with the fishing community on offshore wind energy activities. The committee is to serve as an independent, credible forum to discuss the state of science and pressing concerns related to the intersection of offshore wind with fisheries. Committee members will choose meeting topics in consultation with BOEM staff, based on input from BOEM and other stakeholders.

###

Submitted by NOAA Office for Coastal Management

Product and Data updates

- [QNSPECT](#) (and [tutorial](#)) - This GIS based screening tool helps assess changes in water quality resulting from different land use management and climate scenarios. A great resource for those working on nonpoint source pollution.
- [2021 - 2022 USGS Lidar: Midcoast Maine](#)
- [2021 USGS Lidar: Central Eastern Massachusetts](#)
- [2021 Seascape 1 geoform data for Gulf of Maine](#) (Soon to be on the Northeast Ocean Data Portal).
- [Employment in Coastal Inundation Zones](#) dataset

Training opportunities

- Opportunity to host:
 - [Social Science Basics for Coastal Managers](#) (new module on analyzing qualitative data)
 - [Economic Guidance for Coastal Management Professionals](#) (new module on ecosystem service valuation)

Technical Assistance

- OCM is providing technical assistance and contract support to MADEP on the 2023-2024 eelgrass mapping efforts.
- OCM is providing technical assistance to [Seabrook-Hamptons Estuary Alliance](#) in New Hampshire to map businesses, employees, property values and tax revenue at risk from future sea level rise using ESRI Business Analyst.
- OCM provided technical assistance to Dartmouth harbor to help plan for future economic analysis.

Fellow News

- [Spring Edition of Fellow News](#)
- Connecticut and Maine will be hosting a [Coastal Management Fellow in 2023](#). The matches are made at the end of this month and fellows will start August 1st. Projects:
 - *IMPACT: Improving Public Access in CT* (host agency: CT DEEP). Goal is to Spearhead a multipronged approach for addressing coastal public access needs in Connecticut through an equity and environmental justice lens.
 - *Implementing Maine's Climate Action Plan through Innovation in Municipal Training and Technical Assistance* (host agency: ME Coastal Program). Goal is to Help Maine's vulnerable coastal communities implement Maine's Climate Action Plan, by designing, conducting and evaluating an innovative municipal outreach and technical assistance program.

Upcoming Events

- Workshop to develop a strategy for benthic mapping in the NERRs scheduled for September 2023.

Coming soon...

- Seascope 2 project is expected to start in April.

Other

- Welcome Jenn Hunter! NERRS liaison to Wells, Great Bay and Narragansett Bay reserves.
- 2023 National Coastal Resilience Fund [accepting pre-proposals](#) until April 12, 2023.
- OCM is partnering with the HCOM subcommittee to conduct a data gap/prioritization effort in the northeast NY-ME.
- March Newsletters from OCM
 - [Digital Coast Connections](#)
 - [Coastal Communicators](#)

Northeast Sea Grant Consortium Updates - April 2023

Submitted by Maine Sea Grant College Program Director, Current Chair of NE SG Consortium
Consortium Website - <https://www.northeastseagrant.com/>

Regional research and extension

- Ocean Renewable Energy
- American Lobster Initiative

New funding from National Sea Grant Program to State Programs

- Marine Debris (Infrastructure Bill - \$50M over 5 years)
 - Competitive projects to be announced imminently
- Coastal Resilience (minimal base funding)
 - Programs received funds for capacity building - each State program is implementing
 - Coastal communities are more resilient to **weather and climate hazards** with Sea Grant support through coastal **research, education, engagement, and outreach** that informs and helps improve **planning and risk assessment, disaster preparedness and recovery, resilience design and project implementation**, and by addressing long-standing economic and social inequities that cause some communities to be more vulnerable to the impacts of hazards.

Grant Opportunities

- American Lobster Research Program - <https://seagrant.umaine.edu/funding-opportunities/american-lobster-research-program/>
- Working to partner on another Regional ORE research call (sometime in 2024)

Ongoing Projects

- Ocean Renewable Energy projects - <https://www.northeastseagrant.com/initiatives/ocean-renewable-energy>
- National Sea Grant Offshore Wind Liaison - <https://www.seagrantenergy.org/>
- Aquaculture Liaison, Milford Lab
- Contaminants of Emerging Concern (<https://seagrant.uconn.edu/research/contaminants-emerging-concern/>)

Upcoming Events

- Can Offshore Wind Development Have a Net Positive Impact on Biodiversity? Regulatory and Scientific Perspectives and Considerations - Thursday, April 20, 2023 - Program Begins at 11:30 AM, [Marine Law Symposium | RWU Law](#)
- Seaweed Week- April 21-30 - <https://seaweedweek.org/>
- Seaweed Symposium - April 24-27 - <https://seagrant.umaine.edu/extension/2023-national-seaweed-symposium/>



Submitted by GOMC Working Group Chair Prassede Vella, MassBays

GOMC January 2023 Meeting

The Gulf of Maine Council hosted a virtual joint meeting of the Council and Working Group on January 25, 2023 to discuss development of the next GOMC Framework for Action, proposed two-year Work Plans, the GOMC 2023 Awards Program, and plans for an in-person meeting during 2023. The following GOMC initiatives were discussed during the work plan session:

- Sharing knowledge, approaches and tools associated with advancing Coastal and Marine Spatial Planning in US and Canada
- Climate Network assessment of the *Gulf of Maine Quarterly Climate Impacts and Outlook* and next steps for US / CA collaboration
- Accomplishments and next steps for the *Regional Collaboration to Address Marine Debris in the Gulf of Maine* (partners include NOAA, GOMC, Blue Ocean Society, Center for Coastal Studies, Huntsman Marine Science Centre, Surfrider Foundation, and Urban Harbors Institute).
- Creation of a Gulf of Maine Trail to highlight public access opportunities in CA and US
- Collaboration between GOMC and Gulf of Maine Research Institute (GMRI) as a follow up to Gulf of Maine 2050
- Opportunities to raise awareness about availability of mussel samples from the Gulfwatch Program for Gulf of Maine research

GOMC 2023 Awards Program

GOMC is hosting a 2023 international awards program to honor individuals, businesses and organizations that have made a significant difference in protecting the health and sustainability of the Gulf of Maine watershed. Nominations are currently under review and winners will be honored during an awards ceremony in Boston during June 2023. Information about the program is available at: [GOMC Awards](#).

Regional Collaboration to Address Marine Debris in the Gulf of Maine

With funding from the National Oceanic and Atmospheric Administration's (NOAA) Marine Debris Program, the Gulf of Maine Association continued working in partnership with NOAA, Gulf of Maine Council, Urban Harbors Institute, Surfrider Foundation, Center for Coastal Studies, Blue Ocean Society for the Marine Environment, Huntsman Marine Science Centre and the five jurisdictions bordering the Gulf of Maine to implement an international collaborative approach for addressing marine debris in the Gulf of Maine watershed.

Since launching the program in October 2021, partners have implemented 380 coastal cleanups, removed 39,395 lbs. of debris from the environment, conducted detailed marine debris tracking, hosted a variety of outreach and awareness programs, and pursued innovative initiatives that engaged volunteers, businesses, government agencies, students, industry, and community partners in addressing marine debris throughout the Gulf of Maine.

Recent efforts include outreach to thousands of boaters at the New England Boston Show in Boston to raise awareness about actions to reduce marine debris associated with recreational boating.

More information about the project is available: <https://www.gulfofmaine.org/public/marine-debris/>, or on [Twitter](#).

Funding for this project was awarded by NOAA's North America Marine Debris Prevention and Removal Grant program which funds projects that prevent and remove debris in Mexico and the US-Mexico and US-Canada border areas. This two-year project is expected to leverage an additional \$448,153 in non-federal matching support to expand the scope of regional efforts to reduce marine debris in the Gulf of Maine.

GOMC Next Meeting

The Gulf of Maine Council will host a two-day in person meeting of the Council and Working Group on June 7 and June 8, 2023 in Boston, MA. The meeting agenda is under development but is expected to include topics such the status of North Atlantic right whales in the Gulf of Maine, recent passage of the High Seas Treaty, offshore wind, updates from GOMC partners such and NROC, and development of GOMC Work Plans and Framework for Action.

RWSC

Regional Wildlife Science Collaborative
for Offshore Wind

MISSION

To collaboratively and effectively conduct and coordinate relevant, credible, and efficient regional monitoring and research of wildlife and marine ecosystems that supports the advancement of environmentally responsible and cost-efficient offshore wind power development activities in U.S. Atlantic waters



**Regional Wildlife Science Collaborative
for Offshore Wind**

WHO ARE RWSC?

Cooperatively established, funded, and led by U.S. federal agencies, Atlantic coast states, eNGOs, and offshore wind companies

Hosted by the Northeast Regional Ocean Council and Mid-Atlantic Regional Council on the Ocean, the two Regional Ocean Partnerships (ROPs) on the Atlantic coast, who have been engaging these groups around ocean planning and management priorities for over a decade

WHAT DOES RWSC DO?

Convenes hundreds of experts in wildlife, oceanography, seafloor habitats, offshore wind development, ocean data management, modeling, data visualization

Identifies research and data needs, coordinates and aligns funding, identifies and develops data standards and sharing policies

WHY REGIONAL COLLABORATION?

- Ensure better understanding of the potential effects and mitigation strategies for the many species that interact with multiple offshore wind developments over time
- Stakeholders benefit from shared science, standardized data collection and monitoring protocols, and a collective understanding of the key scientific questions and uncertainties at regional and ecosystem-wide scales
- Inform the responsible development of the industry which may lead to greater certainty for offshore wind companies and lower energy procurement costs for states

MORE INFO

<https://rwsc.org>

DIRECTOR
Emily Shumchenia, PhD
emily.shumchenia@gmail.com





SEA TURTLES • HABITAT & ECOSYSTEM • MARINE MAMMALS • BIRDS & BATS • PROTECTED FISH SPECIES • TECHNOLOGY

An Integrated Science Plan for Wildlife, Habitat, and Offshore Wind Energy in U.S. Atlantic Waters

COMING IN 2023

<https://rWSC.org/science-plan>

The RWSC Science Plan will be a living document. It will compile information about ongoing and planned offshore wind and wildlife data collection and research, sourced from federal agencies, U.S. Atlantic states, environmental NGOs, offshore wind companies, and the research community. From this information and with these experts, RWSC is identifying opportunities for collaboration and research gaps and needs.

The purpose of this Science Plan is to assist the RWSC Steering Committee in implementing the RWSC Mission by:

- **Building on prior efforts and collaboration**
- **Understanding ongoing and planned data collection and active research**
- **Identifying data and research gaps and needs**
- **Standardizing new data collection and facilitating data sharing**
- **Aligning and leveraging funding from multiple sources**

RWSC

Regional Wildlife Science Collaborative for Offshore Wind



2023 STEERING COMMITTEE

- Atlantic Shores Offshore Wind
- Bureau of Ocean Energy Management
- Equinor
- Maryland Department of Natural Resources/Maryland Energy Administration
- Massachusetts Clean Energy Center
- National Audubon Society
- National Oceanic and Atmospheric Administration
- Natural Resources Defense Council
- New York State Energy Research and Development Authority
- Orsted North America
- The Nature Conservancy
- US Fish & Wildlife Service

Implementation and Coordination of Coastal and Ocean Management Priorities for the Northeastern United States via the Northeast Regional Ocean Council

NROC has received funding of \$3,924,563 from NOAA's Funding Opportunity NOAA-NOS-OCM-2022-2007464 to support implementation and coordination of coastal and ocean management priorities for the Northeastern United States. The two-year project period is January 1, 2023 through November 30, 2024. NROC will utilize Infrastructure Investment and Jobs Act (IIJA) funding in collaboration with partners to implement the following projects and activities (organized by NROC Committee).

Coastal Hazards Resilience Committee (CHR) Activities

1: Establish a water level sensor community of practice in New England

NROC CHR will deploy and assess a variety of water level sensors across the region for overland flood detection during coastal storm events and observation of nearshore water levels. There is regional interest among NROC partners, including state coastal programs and NERACOOS, to establish a network of water level sensors as well as the backend infrastructure required to store and analyze data. NROC CHR proposes to work with NERACOOS, NOAA OCM, USGS, and state partners to coordinate regional water level sensor testing with a special interest in investigating overland sensors and the effectiveness of the data delivered during coastal storm events compared to nearshore sensors' ability to support prediction of overland flooding. NROC and project partners will organize a two-day workshop to showcase different sensor types, hear about use cases, and begin to develop a sensor network strategy for the region. The strategy would address long-term monitoring of water levels across the region as well as rapid (re)deployment of sensors in advance of coastal storms. NROC will also work with NERACOOS to deploy overland and nearshore sensors to test sensors that are most efficient for detecting the onset of flooding.

Key Partners: NERACOOS, NOAA, USGS

Total Funding: \$170,000

2: Advance the establishment of living shorelines in New England

[NROC recently completed a 5-year project with The Nature Conservancy \(TNC\)](#) focused on implementing pilot projects and improving the understanding of these approaches, necessary monitoring metrics and protocols, and permitting challenges and opportunities for living shorelines in New England. Links to important reports delivered via previous project work are listed below:

- [Living Shorelines in New England: Site Characterization and Performance Monitoring Guidance \(2022\)](#)
- [Regulatory Challenges and Opportunities for Living Shorelines in New England \(2022\)](#)
- [Living Shorelines in New England: State of the Practice \(2017\)](#)

Links to important outreach/educational materials about living shorelines, listed below:

- [Piloting Living Shorelines in New England \(2021\)](#)
- [Case Studies: Living Shorelines in New England \(2022\)](#)

NROC will utilize IJA funding to implement next steps to advance adoption of living shorelines in the region, implement identified research priorities, and conduct associated outreach. This project will advance living shoreline development in New England through a better understanding of regulatory issues, monitoring techniques, and regional communication with potential project partners in coastal regions, known barriers from previous work. This will lead to increased implementation of living shorelines projects resulting in increased resilience of coastal communities.

Project activities include:

- Host a forum/workshop with representatives from the U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service, and other federal agencies (i.e., Environmental Protection Agency, National Marine Fisheries Service) to review, consider, and discuss regulatory challenges and possible mitigation opportunities. Findings and recommendations will be documented and made available to participants and the public.
- Organize and host a workshop focused on exploring habitat tradeoffs of living shorelines projects in the context of climate change. The topic of habitat conversion and habitat tradeoffs is seen as an important design and permitting consideration limiting the appropriate expansion of living shorelines in the region and remains of high interest to the NROC Coastal Hazards and Resilience Committee. The workshop would provide a forum to discuss complicated permitting review elements such as project goals (restoration vs. erosion coastal/shoreline stabilization) and consideration of future conditions of coastal systems and projects related to climate change.
- Assess the performance and impacts of living shorelines installations and pilot projects. This effort will entail convening project managers, researchers, and experts to share/compile monitoring data and results, and discuss metrics, protocols, and best practices. Information sharing and discussion among practitioners and others will help inform practitioners of the most critical metrics to measure to determine living shoreline project implementation success, as well as positive and negative environmental impacts of these approaches.
- Conduct outreach and engagement with landowners, engineers, and communities about the benefits of living shorelines and lessons learned regarding habitat enhancement and tradeoffs, project design and monitoring. Sample outreach products may include site visits for coastal engineers for continuing education credits, meetings/webinars, and print and web materials.

Key Partners: TNC, USFWS, USACE, NOAA Fisheries, US EPA, and the National Estuarine Research Reserves in New England

Total Funding: \$155,000

3: Develop approaches for integrating sea-level rise projections into planning tools and policies

In the past, the NROC CHR Committee has focused on sharing tools, guidance, and case studies on planning for sea level rise (SLR). New data, updates to national and state or local models, and new or updated visualization tools create an opportunity for NROC to serve as a forum for sharing approaches to communicating new information, reviewing guidance, and incorporating SLR projections into policies and planning processes. NROC will host a roundtable on updated SLR projections and planning guidance, centering around the newly released NOAA data. NROC will invite NE regional partners to discuss best practices and lessons learned for communicating new and updated information (e.g., probabilistic

projections). There is also an opportunity to host a NOAA training related to the new projections, guidance, and communicating risk information. This is a timely topic as states are actively developing SLR risk assessments, plans, policies and regulations.

Key Partners: NOAA

Total Funding: \$27,500

Ocean and Ecosystem Health Committee (OCEH) Activities

4: Update the Integrated Sentinel Monitoring Network (ISMN) Science and Implementation Plan

The [ISMN](#) was initiated in 2012, by NROC and NERACOOS through NROC's OCEH Committee, to facilitate and coordinate the monitoring of sentinel indicators – biodiversity, key species, and ecosystem processes and functions – and assessments of how they respond to changes in the marine environment. In 2016, the ISMN Science and Implementation Plan was finalized. Since that time, NERACOOS and NROC have worked to establish the ISMN and many other organizations have advanced ecosystem monitoring and assessment efforts. NROC and NERACOOS will produce a brief report that summarizes progress, prioritizes activities over the next three to five years, and recommends updates to the ISMN Plan. The outputs from this report will be incorporated into NROC's five-year work plan. Other project tasks include:

- Regularly convene the ISMN Oversight Committee to provide overall direction for continued development of the ISMN, including the drafting of a report summarizing progress to date and identifying priorities for continued development.
- Inventory and review monitoring, data development, and reporting for each sentinel indicator 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 to develop aspects of the ISMN.
- Produce a report that summarizes progress developing the ISMN, identifies priorities for the next three to five years, and recommends updates to the ISMN Science and Implementation Plan

Key Partners: NERACOOS

Total Funding: Work conducted via contract staff support

5: Advance mapping and monitoring of coastal vegetation and estimates of blue carbon stores

This project will continue and expand on collaborative work led and funded by EPA Region 1 with NROC over the past 2 years to update and enhance coastal vegetation datasets on the Northeast Ocean Data Portal. The EPA Region 1 project resulted in the formation of an expert work group convened by EPA to review methods and draft data products, updated eelgrass and tidal marsh habitat datasets on the Portal, and the development of the first blue carbon density maps for the northeast region (ME to NY; to be added to the Portal by fall 2022). Several of these work group members have been participating in the NROC-led work group that supported and reviewed the development of coastal vegetation, including submerged aquatic vegetation, datasets on the Portal since 2013. This project will ensure that the work group continues to be engaged and that each of these data products are updated on the Portal with the latest habitat and carbon density data collected in the last few years. It will also result in an analysis of historical change to blue carbon stocks over the last several decades in a pilot location in the northeast with robust

data. Finally, a workshop cohosted by NROC and EPA Region 1, with invitations to coastal program managers and coastal vegetation monitoring experts, will be held in coordination with the Integrated Sentinel Monitoring Network (ISMN). Workshop outputs will include the identification of coastal vegetation sentinel sites and documentation of consistent monitoring protocols already being applied in the region such as SeagrassNET. Workshop participants will learn more about the protocols and where new locations may be needed.

Key Partners: EPA, Coastal vegetation expert work group

Total Funding: \$125,000

6: Develop a regional system for monitoring ocean and coastal acidification (OCA)

Over the past decade NROC and NERACOOS have worked closely to improve understanding of the marine environment for the benefit of science, policy, and the economy, particularly through the Northeast Coastal Acidification Network (NECAN) and Integrated Sentinel Monitoring Network (ISMN). Building on this collaboration, project activities include:

- Organize and host regional workshops and webinars and develop a regional OCA monitoring plan.
- Integrate OCA data into the Northeast Ocean Data Portal and the [NERACOOS Ocean Climate Tool](#) to provide spatial and temporal perspectives of ocean acidification and change over time.
- Provide funding to accelerate implementation of the regional OCA monitoring plan.
- Initiate new monitoring activities, including microhabitat characterization in the rocky intertidal zone and utilizing fishing vessels as ships of opportunity (SOOPs).
- Support the deployment of sensors to measure OCA via commercial fishing vessels and to integrate data collected via these sensors into the NERACOOS Ocean Climate Tool. Notably, this component includes in-kind contributions of time, expertise, and monitoring platforms from the fishing fleet.

Key Partners: NERACOOS, NECAN, WHOI, Northeastern University, Gulf of Maine Lobster Foundation

Total Funding: \$350,000

7: Identify high priority areas for comprehensive seafloor mapping and advance mapping of those areas

The Habitat Classification and Ocean Mapping (HCOM) Subcommittee of the OCEH has been advancing habitat classification approaches and identifying seafloor mapping priorities in New England for nearly a decade. This includes the Gulf of Maine Seascapes project, a 3-year, \$300,000 collaboration between ME, NH, MA, and NOAA OCM. Through this effort, HCOM identified an area of seafloor in the Gulf of Maine (GOM) that is inadequately mapped compared to surrounding areas. This is also an area near enough to shore and to the states of Maine, New Hampshire, and Massachusetts for it to potentially be considered for a variety of ocean activities, including offshore wind development and the installation of energy transmission infrastructure. NROC will use IJIA funding to continue identifying high priority areas in the Northeast for high resolution multibeam bathymetry and seafloor characterization via video and sediment collection. NROC will also use IJIA funding to map the area of the GOM that HCOM has already identified as a priority.

Key Partners: New England state coastal programs and fishery agencies, potentially NY, NOAA OCM, NOAA IOCM, BOEM, USGS, UNH CCOM, USGS Woods Hole, ME Geological Survey, and ME Governor's Energy Office, NE Ocean Data Portal Team

Total Funding: \$436,034

Ocean Planning Committee (OPC) Activities

8: Advance interjurisdictional coordination and the use of best practices in ocean planning

The OPC has been supporting and informing ocean planning, management, and regulatory processes by enhancing interjurisdictional coordination, advancing best practices, and developing the Northeast Ocean Data Portal. For example, NROC has recently been supporting planning for offshore wind in the Gulf of Maine (GOM) by developing data products and a draft GOM Portal in consultation with the three GOM states, BOEM, USCG, and NOAA. Through the OPC, NROC has also been supporting USACE, USCG, BOEM, EPA, and NEFMC actions by providing maps, data, and other information, mostly via the Portal, that can support public comment and agency coordination around on those activities. NROC has also developed and provided information that can support state federal consistency reviews and the establishment of Geographic Location Descriptions. Last, NROC has developed a draft *Best Practices for Ocean Permitting and Management Processes* that recommends practices to enhance stakeholder engagement, interjurisdictional coordination, and the use of data and information in public processes. The OPC will continue to serve as a forum for interjurisdictional coordination to identify issues and activities to address these issues. OPC activities will include:

- Support interjurisdictional coordination through regular meetings of the OPC. Identify current or pending ocean planning, management, and regulatory actions and activities that could support those processes.
- Provide information and opportunities for coordination around specific ocean planning, regulatory, and management activities in New England.
- Finalize and communicate a set of *Best Practices for Ocean Permitting and Management Processes*.

Partners: Tribes, New England states, BOEM, NOAA, USACE, EPA, NEFMC

Total Funding: Work conducted via contract staff support

9: Upgrade and enhance the Northeast Ocean Data Portal website, applications, data services and information technology infrastructure

The Northeast Ocean Data Portal (Portal) has been in use since 2009. Since that time, the number of datasets, tools and functions, monthly visitors, and uses in planning and decision making throughout the region has grown markedly, with especially large increases in the last three years. In addition to data and tools, the Portal now supports information and maps supporting several agencies' proposed actions and studies (e.g., Army Corps, US Coast Guard) and BOEM's offshore wind planning, leasing, and project review processes. These newest features provide agencies with opportunities to share information with a broad group of stakeholders in the region, and provide stakeholders with access to maps, data, and descriptions of processes that relate to the agencies' Federal Register filings and Public Notices.

Given agencies' and stakeholders' increased reliance on Portal data and tools to inform planning, decision making, interjurisdictional coordination, and public comment, NROC will upgrade Portal

technology and the Portal website within the next two years and to develop a plan for the subsequent three to five years to ensure more consistent upgrades to and maintenance of Portal technology and the Portal website. In addition, during this task NROC will advance the Gulf of Maine Portal (currently under development using funding from the Maine Governor's Energy Office) as a project nested within the Portal upgrade effort to ensure all new technologies and tools are applied to it as well, and that it evolves to address the needs of Gulf of Maine states and the Gulf of Maine Task Force.

- Upgrade Portal technology, including back-end data storage/management architecture and front-end mapping functions and tools.
- Redesign and modernize Portal website.
- Produce and implement a five-year plan for consistent Portal technology and website updates.
- Advance the Gulf of Maine Portal to support offshore wind planning.

Key Partners: NROC members, Portal users, and key data providers such as the Marine Cadastre, NOAA, BOEM, EPA, and NERACCOOS

Total Funding: \$250,000

10: Update marine wildlife data on the Northeast Ocean Data Portal and conduct new analyses that assess changes over time and inform the development of the marine wildlife and habitat components of the ISMN

Nearly a decade ago, NROC began a partnership with the Marine life Data and Analysis Team (MDAT) led by the Duke University Marine Geospatial Ecology Lab (MGEL). In that time, MDAT has generated perhaps the most detailed and comprehensive library of marine life data products in the world for 29 species of cetaceans, 40 species of seabirds, and 81 species of fish along the U.S. Atlantic coast. NROC will use IJA funding to support an "MDAT 2.0" effort, in collaboration with MARCO, to bring marine life data products up to date and in alignment with new and emerging uses of the data products, many of which involve explicit assessments of change and evaluation of stressor impacts, which requires careful and robust data product development and revision. These include:

- Coordination with the Regional Wildlife Science Collaborative for Offshore Wind (RWSC) – a multi-sectoral organization that is being managed by MARCO and NROC and is focused on coordinating the unprecedented amount of current and future wildlife research associated with offshore wind development.
- Advancing development of the ISMN to track the change and coordinate monitoring of important ecological resources over time.

Project activities include:

- Continue annual marine life updates, including products derived from the most recent cetacean and avian models.
- Develop new sea turtle products, leveraging soon-to-be completed modeling efforts by NOAA AMAPPS and the US Navy.
- Develop products for new species groups in response to management needs.
- Integrate data products for focal fish species from the Northeast Regional Habitat Assessment into the Portal.
- Develop innovative products showing change over time, distribution and abundance at varying scales, and integrate marine life products with the work of the ISMN and RWSC (in addition to their availability via the Portal).

Key Partners: NOAA Fisheries and NCCOS, BOEM, USFWS, states, NERACOOS, RWSC, Duke MGEL, NEFMC, MAFMC

Total Funding: \$250,000

11: Update and reorganize the commercial fishing data on the Northeast Ocean Data Portal

The Northeast Ocean Data Portal is increasingly being used to inform planning, consultations, and public comment for a range of agency actions and proposed infrastructure projects, including offshore wind, aquaculture, cables and pipelines, sediment management and disposal, and maritime navigation assessments. Data products depicting the footprint of commercial fishing operations and the importance of those areas to coastal communities have always been among the most used, important, and expensive datasets on the Portal. In 2019, NROC, partnered with the Mid-Atlantic Regional Council on the Ocean (MARCO) and the Responsible Offshore Development Alliance (RODA) to engage the commercial fishing industry to obtain feedback on the data products on the Portals. This project, funded via the FY19 Regional Data Sharing appropriation, resulted in a [report finalized in December 2020](#) that includes a series of recommendations about how to update and organize commercial fisheries data on the Portal.

The RODA report includes important recommendations which require additional funding to implement. These recommendations include incorporating the [NOAA fishing footprint](#) data and related products characterizing the [socioeconomic impacts of offshore wind development](#), continuing regular VMS updates, updating the Communities at Sea (CAS) data, and reorganizing all of the various products by fishery instead of the current organization by type of product. Additional recommendations provided to NROC staff since the RODA report was published include considering the development of products that depict the directionality of tow, heading or bearing, transit, fishing areas, and the Loran-C navigation system.

Implementing these recommendations will significantly improve the utility of commercial fishing data on the Portal.

- Organize a work group composed of state, federal, tribal, and fishery management council members to inform and review portal development.
- Continue developing VMS derived data products, integrate the fishing footprints data in the Portal, and update and maintain a library of fisheries management data products.
- Identify new data needs and, if possible, develop or integrate those products. This includes new products such as depicting the directionality of tow, heading or bearing, transit, the Loran-C navigation system, and others identified by the industry and agencies.
- Reorganize data products per industry recommendations to better depict fishing areas, vessel operations, and management for each fishery.

Key Partners: NOAA Fisheries, State fishery agencies, MARCO, the New England and Mid-Atlantic Fishery Management Councils, and fishing industry representatives

Total Funding: \$150,000

12. Other IJJA Funded NROC Activities

- **Tribal Engagement.** Support for a tribal engagement coordinator to help identify and scope tribal priorities, expand opportunities and support for tribal engagement in NROC committees and projects, reimbursement for Tribal travel to NROC and related meetings in the region, and provide assistance for fundraising and proposal development for tribal priorities.
- **Diversity, Equity, Inclusion and Justice (DEIJ).** Ensure underserved community needs are considered in NROC's priority setting and projects. Increase diversity of NROC's committees and project teams. Provide the best opportunities for equity and inclusion considerations associated with NROC activities related to improving monitoring and data collection coverage, interjurisdictional coordination, and the development of new products characterizing ocean uses and activities.
- **NROC Capacity and Organizational Administrative Costs.** Contract staff support and administrative costs for NROC Executive Committee, three Committees, tribal engagement, communications and outreach, and various projects.

ATTENDEES

Seth Ackerman, USGS; Deerin Babb-Brott, White House Office of Science and Technology Policy; Walter Barnhardt, USGS; Julianna Bauer, Subcom; Marcel Belaval, USGS; Rick Bennett, US FWS; Dani Boudreau, NOAA; Alison Bowden, The Nature Conservancy; Debbie Brill, Duke University; Jennifer Bucatari, BOEM; Leann Bullin, BOEM; Todd Burrowes, ME DMR; Todd Callaghan, MA CZM; Jamie Carter, NOAA; Cheryl Chisolm; Mel Coté, US EPA; Steve Couture, NH DES; Fara Courtney, Outer Harbor Consulting; Chris Coyle; Corrie Curtice, Duke University; Mark Cutter, USCG; Ted Diers, NH DES; David Dow; Jenna Ducharme; Jynessa Dutka-Gianelli, UMass; Lisa Engler, MA CZM (NROC State Co-Chair); Claire Enterline, ME Coastal Program; Marianne Ferguson, NOAA Fisheries; Mark Finkbeiner, NOAA; Wright Frank, BOEM; Kate Frew, MA DMF; Parker Gassett, Maine Sea Grant; Melissa Gates, Surfrider Foundation; Ann Getchell, Scotland; Brent Greenfield, National Ocean Policy Coalition; Patrick Halpin, Duke University; Mary-Beth Hart, CT DEEP; Glen Herbert, Fisheries and Oceans Canada; Lyndie Hice-Dunton; ROSA; Tricia Hooper, NOAA; Gavin Jackson, CT DEEP; Cathy Johnson, NPS; Rachel Keylon, CSO; Chris Kinkade, NOAA; Julia Knisel, MA CZM; Paula Kullberg; Joan LeBlanc, NROC; Kathleen Leyden, ME DMR; Julia Livermore, RI DEM; Allison Lorenc; Becky Love, NOAA; Katie Lund, UConn CIRCA; Regina Lyons, US EPA; Daniel Martin, NOAA; Meghan Massaua, Meridien Institute; Audrey Mayer, US FWS; Jennifer McCann, URI; Chris McGuire, TNC; Elizabeth McKenna, Senator Shaheen's Office; Meredith Mendelson, ME DMR; Ivy Mlsna, US EPA; Jon Morrison, USGS; Jackie Motyka, NERACOOS; Nick Napoli, NROC; Alexis Neffinger; Valerie Nelson; Betsy Nicholson, NOAA OCM (NROC Federal Co-Chair); Allison Novelly; Kevin O'Brien, CT DEEP; Larry Oliver, US ACE; Tricia Perez, DOE; Caitlin Pfeil, EDR; Ed Reiner, US EPA; Marta Ribera, The Nature Conservancy; Colleen Roche, NOAA; Dan Sampson, MA CZM; Kaitlyn Shaw, NOAA; Emily Shumchenia, NROC; Laura Singer; Christine Sloan; Mark Smith; Malcolm Spaulding; Peter Taylor, Waterview Consulting; Brian Thompson, CT DEEP; Timothy Timmermann, US EPA; Amy Trice, Ocean Conservancy; Prassede Vella, MA CZM; Jeffrey Waldner, BOEM; Joan Walton; Larry Ward, UNH; Steven West; Sandra Whitehouse; Chris Williams, NH Coastal Program; Jeff Willis, RI CRMC; Gayle Zydlewski, Northeast Sea Grant Consortium

WELCOME AND INTRODUCTIONS

NROC Co-Chairs Lisa Engler, MA CZM, and Betsy Nicholson, NOAA, welcomed meeting participants and reviewed the meeting agenda.

NROC EXECUTIVE COMMITTEE UPDATES

Betsy Nicholson provided the following summary of NROC's funding sources.

NROC Funding from Infrastructure Investment and Jobs Act

Status: NROC has applied for funding / NOAA approval pending

7. NOAA-NOS-OCM-2022-2007464

- Project: *Implementation and Coordination of Coastal and Ocean Management Priorities for the Northeastern United States via the Northeast Regional Ocean Council*
- Total Requested: \$3,924,563
 - December 1, 2022 – November 30, 2023: \$1,962,144
 - December 1, 2023 – November 30, 2024: \$1,962,419

- Leads: NROC (via Coastal States Stewardship Foundation as fiscal sponsor). Projects will be led by NROC Executive Committee and Coastal Hazards Resilience Committee (CHRC), Ocean and Coastal Ecosystem Health Committee (OCEH), and Ocean Planning Committee (OPC)
- Potential Funding Period: December 2022 - November 2024
- Project Details: See pp. 21-27 for a summary of proposed projects and potential partners

Ocean Planning Committee

8. MA Clean Energy Center

- Project: *Developing Standard Approaches to Synthesizing, Visualizing, and Disseminating High-Resolution Acoustic and Imagery Data to Advance Benthic Mapping in the Wind Energy Areas of the Northeast*
- Award: \$163,850 (includes \$49,050 for NROC stakeholder and work group coordination and integration of products into the Northeast Ocean Data Portal)
- Lead: Inspire Environmental
- Funding Period: January 2021 – March 2023

9. Bureau of Ocean and Energy Management

- Project: *Operations and maintenance of the Northeast Ocean Data Portal*
- Award: \$250,000
- Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor)
- Funding Period: September 2022 – September 2023

10. FY2021 NOAA Regional Ocean Data Sharing/Regional Ocean Partnership Funding

- Project: *Update fishing, marine life, and recreation data on the Northeast Ocean Data Portal*
- Award: \$204,000
- Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor)
- Funding Period: August 2021 – November 2022

11. FY2022 NOAA Regional Ocean Data Sharing/Regional Ocean Partnership Funding

- Project: *Update fishing, marine life, recreation, maritime, sand resource, and other data on the Northeast Ocean Data Portal*
- Award: \$204,000
- Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor)
- Funding Period: July 2022 – September 2023

12. Maine Governor's Energy Office

- Project: *Data, Mapping, and Gulf of Maine Portal for Offshore Wind*
- Award: \$45,000
- Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor)
- Funding Period: March 2022 – February 2023

13. Funding for Regional Wildlife Science Collaborative for Offshore Wind
(Shared with the Mid-Atlantic Regional Council on the Ocean)

The Regional Wildlife Science Collaborative for Offshore Wind (RWSC) is funded through a mix of member dues, in-kind contributions, projects, and research funding. In FY 2022 (July 1 2021 – June 30 2022), RWSC received \$397,350, of which \$302,000 was from membership dues from 18 individual entities (states, eNGOs, offshore wind companies). RWSC expects a similar level and mix of funding for FY 2023, in addition to funds to support staff time from the following existing projects and research:

- Power analysis for optimal design of a Passive Acoustic Monitoring network in the Atlantic Ocean – Bureau of Ocean Energy Management
- Developing a baleen whale monitoring plan for Virginia’s Wind Energy Area – Virginia Department of Environmental Quality
- Wildlife and Offshore Wind (WOW): A systems approach to research and risk assessment for offshore wind development from Maine to North Carolina – Duke University – Department of Energy, Bureau of Ocean Energy Management

FEDERAL PARTNER UPDATES

Betsy Nicholson, NOAA

NOAA received \$2.96 billion in Bipartisan Infrastructure Law (BIL) funding for 18 provisions:

- Climate Data and Services: \$904 million
 - Flood and Inundation Mapping and Forecasting
 - Water Resources Development Act Data Acquisition
 - Wildfire
 - Ocean and Coastal Observing Systems
 - Regional Ocean Partnerships
 - Research Supercomputing
- Climate Ready Coasts: \$1.467 billion
 - National Oceans and Coastal Security Fund
 - Habitat Restoration
 - Marine Debris (NOS)
 - Marine Debris (OAR)
 - Coastal Zone Management
 - National Estuarine Research Reserve System
- Fisheries and Protected Resources: \$592 million
 - Consultations and Permitting
 - Fish Passage
 - Pacific Coastal Salmon Recovery Fund

NOAA Bipartisan Infrastructure Law Funding Opportunities Most Relevant to NROC

Focus - advance coastal habitat protection, restoration and resilience

- Coastal Zone Management Habitat Protection and Restoration: apply through CZM Programs (\$35M/year competitive, \$5M non-competitive)
- National Estuarine Research Reserve Habitat Protection and Restoration: apply through NERRs (\$12M/year competitive, \$3M non-competitive)

- National Coastal Resilience Fund, a partnership between NOAA and the National Fish and Wildlife Foundation (\$97M/year and also \$34M competed in regular appropriations)
- Transformational Habitat Restoration and Resilience Grants (\$85M/year)
- Coastal Habitat Restoration and Resilience Grants for Underserved Communities (\$10M/year)
- Tribal Engagement in Regional Ocean Partnership Priorities (\$1M/year competitive)

Regina Lyons, EPA

EPA BIL Funding Opportunities Most Relevant to NROC

- Infrastructure Investment and Jobs Act/ BIL
 - [EPA](#) will administer \$5 billion through State Revolving Funds to improve drinking water, wastewater, and stormwater infrastructure
- National Estuaries Program
 - Six New England NEPs will receive an additional \$900K annual award under BIL + regular appropriations
 - [Coastal Watershed Grants](#)
 - Restore America’s Estuaries and EPA will award \$1 million annually
 - Capacity is a funding area
- EPA Geographic Programs
 - Long Island Sound Study (\$106 Million) and Southeast New England Program (\$15 Million) BIL funds + regular appropriations
- Save Our Seas 2.0
 - Solid Waste Infrastructure for Recycling (SWIFR) and Education and Outreach grant programs including trash/marine debris reduction
- EPA is developing equity strategies for all of its funding opportunities

Wright Frank, BOEM

- Recent Gulf of Maine offshore wind activities include:
 - Gulf of Maine Renewable Energy Task Force met on May 19.
<https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine-task-force-meeting-may-19-2022>
 - State of Maine research application published on August 19
 - BOEM published request for competitive interest for Maine and broader Gulf of Maine research applications
- BOEM is developing guidance on interactions between commercial wind energy projects and recreational and commercial fisheries. Comment period ended in August. Final guidance to be published in 2023.
- BOEM has an open solicitation for ideas for environmental studies. Responses due to BOEM by December 9.
- BOEM / NOAA have announced a joint Draft North American Right Whale Offshore Wind Strategy. Public comments due on December 4.

More information about BOEM’s offshore wind activities: <https://www.boem.gov/>

Jon Morrison, USGS

Recent USGS activities in Long Island Sound include:

- USGS is monitoring nine embayments across Long Island Sound with discreet and continuous water quality and physical parameters.
- Building on this network, USGS will begin monitoring to increase understanding about ocean acidification.
- USGS is developing a map-based portal to share information about work being conducted throughout Long Island Sound. Will include information about projects, contacts, and links to available metadata.
- Coastal vulnerability assessment is focusing on calculating shoreline change rates and developing a coastal change likelihood index.

Walter Barnhardt, USGS

Several new mapping and modeling products are coming out as part of a long-term USGS / MA CZM collaboration to map state waters. USGS is publishing high resolution maps of seafloor geology and UAS (drone-based mapping) of beaches and wetlands in Cape Cod Bay, Nantucket Sound, Outer Cape and other locations. Maps provide basis for delineating resources, protecting habitat, and assessing environmental change. Seafloor mapping in Cape Cod Bay, Massachusetts - USGS data release July 2022:

<https://cmgds.marine.usgs.gov/data-releases/datarelease/10.5066-P99DR4PN/>

Larry Oliver, US ACE

US ACE has received new implementation guidance on Section 125 related to beneficial use of dredged material. This is a priority for Congress and for US ACE. The new law indicates that “it is the policy of US ACE to maximize beneficial reuse in an environmentally acceptable manner of suitable dredged material obtained from construction and operation and maintenance of water resources development projects”. The guidance authorizes US ACE to use funds for construction or operation and maintenance of dredging projects involving the disposal of dredged material when selecting a disposal method that is not the least cost option based on a determination that the incremental cost of the disposal method is reasonable in relation to the environmental benefits or hurricane and storm damage flood reduction benefits. Allows for multiple placements at one site. Federal share for each placement is \$10 million. Dredged materials can be used in combination with aquatic ecosystem restoration projects. Dredged materials can be placed on land owned by other federal agencies if they pay the incremental cost difference. Details will be available online soon.

Additional project updates from the region:

- Pawcatuck Coastal Rhode Island Study is moving toward implementation activities such as increasing the elevation of homes and floodproofing businesses.
- The Rhode Island Coastline Study which covers all of Narragansett Bay is wrapping up. Recommendations include raising the elevation of houses and floodproofing buildings.
- US ACE Just kicked off / had a charrette for the Boston Coastal Storm Risk Management project to explore alternatives to reduce flood risks in Boston. Through the related Boston Metro Watershed Study, US ACE is working with several other agencies to consider regional adaptation benefits for 15 communities surrounding Boston from Hull to Revere.

Rick Bennett, US FWS

- US FWS has been expanding interest in implementation of nature-based solutions. This effort started in the Delaware where \$10 million per year is being targeted toward nature-based solutions. More recently, the Chesapeake Wilds Act was passed and funded, there is legislation in place for New York / New Jersey harbors that might pass this year, and there is interest in developing similar programs in Connecticut.
- DOI is creating themes for IJA funds such as salt marsh restoration for the entire Atlantic Coast.
- Key priorities for US FWS include focusing on underserved communities and promoting environmental justice, improving tribal relations, and mitigating climate change. These efforts are being supported by capacity building grants.
- Priorities in the Northeast include coastal resilience which focuses on restoration of high marsh habitat for salt marsh sparrows, and general marsh habitat improvements such as addressing tidal restrictions or sediment enhancements. Aquatic connectivity and landscape scale planning are also key priorities.

STATE PARTNER UPDATES

Lisa Engler, MA CZM

- Last month, CZM announced the release of its revamped Massachusetts Ocean Resource Information System (MORIS) which is an online portal where users can find, review and share data. <https://www.mass.gov/service-details/massachusetts-ocean-resource-information-system-moris>
- MA Coast Flood Risk Model, a dynamic coastal storm and flooding model developed with Woods Hole Group, has been expanded to cover the entire Massachusetts' coast. Data from the model is being added to the state's coastal flood viewer. MA CZM has partnered with Woods Hole Group to host training sessions for technical and general users to provide information about how to use and interpret data from the model.
- The MA Coastal Resilience Grant Program has provided more than \$12 million to fund 27 new projects (16 build on previous efforts). The MA Coastal Habitat and Water Quality Grant Program was expanded to support community planning in addition to BMP projects. Both programs benefited from ARPA funds. <https://www.mass.gov/service-details/coastal-resilience-grant-program>
- MA CZM has been working with the US ACE on two resilience planning projects: 1) working in partnership with the City of Boston on resilience measures that build on the Climate Ready Boston initiatives previously funded by CZM; and 2) a three-year watershed study that looks across 15 communities in the Boston metro area to advance regional adaptation interventions. This regional project may serve as a model for other coastal regions in the state.

Kathleen Leyden, ME Coastal Program

- Updates regarding offshore wind activities in Maine are available at <https://www.maineoffshorewind.org/>.
- With Governor Mills reelection, the state will continue moving forward with implementing its climate plan. The Governor's Office is collaborating with the committee's work groups to integrate equity principles into climate plan initiatives.
- Regulatory review is underway for the Maine Natural Resources Protection Act and its associated rules. The review includes a look at sand dune rules in the context of sea level rise, storm surge and flooding.

- Governor's Office of Policy Innovation in the Future launched a new municipal grant program in partnership with ME Coastal Program where communities participating in the program implement a series of activities from flood plain resiliency check lists to developing vulnerability plans. <https://www.maine.gov/future/climate/community-resilience-partnership>
- ME submitted one large proposal in the planning category through the IJA OCM program. Using ARPA funds for tidal restoration projects.
- Maine's coastwise tidal restoration project will be releasing a new guidebook and training programs for practitioners.
- Maine Island Institute may re-up the Working Waterfront Coalition to advance working waterfront policies.

Chris Williams, NH DES

- NH received \$6 million in ARPA funds for coastal watershed projects including the Durham Mill Pond Dam removal project and the Chesapeake Gonic Mill Dam removal project in Rochester. ARPA funds are also being used to create a stormwater and flood resilience utility for the City of Dover and to implement several tidal culvert restoration projects in the coastal watershed.
- NH Coastal Program will be receiving NOAA IJA funding of \$150,000 for three years. IJA funding will support a staff position and efforts to advance salt marsh restoration and monitoring in collaboration with the Great Bay NERR. Funds will also support land conservation efforts.
- NH Coastal Program has received NOAA Project of Special Merit funding for FY22 to fund a full-time coastal resilience coordinator for the Town of Hampton for two years. The intent is to provide support for Hampton which faces high risks for climate damage. Ideally, the Town will provide funding for the position after the first two years.

Brian Thompson, Connecticut

- CT is working across regional boundaries with the state of NY on regional offshore wind transmission. CT is working in collaboration with NYSERDA on a draft cable constraints assessment focused on minimizing the number of cables and identifying cable corridors where all the cables could be placed.
- Advisory Committee for the Long Island Sound Blue Plan met a couple weeks ago to discuss integrating cable transmission into the plan.
- CT has been making significant progress on living shorelines. Several projects (including the very successful Stratford Point living shoreline) are highlighted via story map here: <https://portal.ct.gov/DEEP/Coastal-Resources/Coastal-Management/Living-Shorelines>
- CT has established a Climate Resilience Fund to support planning so that projects can be ready to apply for federal IJA support for implementation. IJA funds are also helping to increase staff capacity with 10 new positions to support planning and permitting for infrastructure projects.

Jeff Willis, Rhode Island

- RI has received NOAA Project of Special Merit funding to look at shoreline access opportunities throughout the state. The project focuses on use of access and advancing equity. RI has over 400 miles of shoreline with a goal to achieve one public access point per mile. While the state is half way toward achieving that goal, current access opportunities don't provide enough access for underserved communities. This project focuses on increasing understanding and use of access points and increasing / creating new access opportunities in underserved communities. In collaboration with this project, RI is working with University of Rhode Island and the RI Saltwater

Anglers Association to increase understanding about where recreational fishing occurs in Narragansett Bay and what access points are being used for this purpose.

- RI Infrastructure Bank administers RI's Ocean State Coastal Adaptation and Resilience (OSCAR) Fund which will receive additional state funds.
- Working with RI DEM to enhance the Storm Tools program which looks at shoreline risks associated with storms and flooding. Data about rainfall events is being added to the platform to expand knowledge about how riverine systems are impacted by rain events.

NROC PARTNER UPDATES AND OPPORTUNITIES FOR COLLABORATION

Northeast Sea Grant Consortium (NESGC)

Gayle Zydlewski of Maine Sea Grant provided updates on behalf of NESGC, which focuses on implementing regional projects in Connecticut, Maine, New Hampshire, New York, Rhode Island, and Massachusetts (MIT and Woods Hole Oceanographic Institution).

Regional initiatives:

- American Lobster Initiative
 - American Lobster Research Program: 24 affiliated projects utilizing researchers from 40+ institutions across Northeast, involves students, industry, non-profits, government, and academia. Anticipating another research call soon.
 - Northeast Regional Lobster Extension Program: operates across all seven NESG programs, adds value to state-specific projects, addresses emerging regional needs, and is informed by a Regional Steering Committee. <https://seagrant.umaine.edu/extension/american-lobster-initiative/>
- Considering another Ocean Renewable Energy/Co-existence call
 - looking for partners

New/continuing national initiatives:

- Aquaculture
- Marine Debris (Infrastructure Bill - \$50M over 5 years)
- Coastal Resilience - *since 2021 working on this focused initiative across the network - Coastal communities are more resilient to weather and climate hazards with Sea Grant support through coastal research, education, engagement, and outreach that informs and helps improve planning and risk assessment, disaster preparedness and recovery, resilience design and project implementation, and by addressing long-standing economic and social inequities that cause some communities to be more vulnerable to the impacts of hazards.*
 - Building off internal and partner discussions about needs/opportunities
 - Maine is hiring a new coastal resilience person to work with the Casco Bay Estuary Partnership

Sea Grant Biennial Research Funding 2024-2026 RFPs will open between November 2022 and January 2023.

For more information:

- NY: <https://nyseagrant.org/proposals/>
- CT: <https://seagrant.uconn.edu/funding/grants/>
- RI: <https://seagrant.gso.uri.edu/research/#funding>
- WHOI: <https://seagrant.whoi.edu/funding-2/funding/>
- MIT: <https://seagrant.mit.edu/funding-opportunities-core-rfp/>

- NH: <https://seagrant.unh.edu/research/funding>
- ME: <https://seagrant.umaine.edu/funding-opportunities/>

National DEIJA Initiatives

All of NESGC work is informed by DEIJA priorities. In 2018, the Sea Grant network developed a strategic DEI 10-year vision plan, entitled “Reaching Outward and Looking Inward: Building Resilience through the lens of DEI.” This document resulted from a year-long visioning effort that was funded by the National Sea Grant Office through a federal funding opportunity called “resilience visioning and development projects.” Sea Grant has developed a community of practice resources page for diversity, equity, inclusion and justice, available at: <https://seagrant.noaa.gov/insideseagrant/Implementation/Network-Visioning/DiversityInclusion>

For more information about Northeast Sea Grant Consortium initiatives, go to: <https://www.northeastseagrant.com>

Discussion Points

- NROC partners expressed interested in helping to identify research priorities and needs around social aspects as requested by NESGC.
- Extension programs often work across regions to collaborate and develop communities of practice for advancing sustainable and resilient communities.

NERACOOS

Jackie Motyka provided the following updates regarding NERACOOS funding and activities.

IJA Funding

- NERACOOS has received IJA funds to enhance ocean observing systems throughout the region.
- NERACOOS is partnering with NROC to implement several of its IJA-funded initiatives (details provided in separate IJA session and summary).
- NERACOOS is also partnering with NEPs on several IJA-funded projects including work with Casco Bay Estuary Partnership to improve circulation modeling in Casco Bay. NERACOOS is having preliminary discussions with MassBays regarding collaboration on monitoring efforts.
- NERACOOS is also continuing its Coastal and Ocean Modeling Testbed (COMT) projects.

Recent Activities

- Since the last NROC meeting, NERACOOS has deployed a new buoy in Buzzards Bay to collect surface observations. This project was funded by MA DEP as part of their oil spill response program. There are now buoys on both sides of the Cape Cod canal to inform navigation.
- NERACOOS will receive a new award through the Climate Program Office which builds on work of the Integrated Sentinel Monitoring Network regarding plankton monitoring. This new three-year project will focus on assessing climate impacts to Stellwagen Bank and determining how to improve efforts to model and predict impacts using plankton observations.
- NERACOOS Annual Meeting is coming up on December 9, 2023 in Portsmouth, NH.

New England Federal Partners

Rick Bennett, US Fish and Wildlife Service provided the following updates on behalf of the New England Federal Partners (NEFP). The federal partners meet quarterly to talk about opportunities for cross agency activities and opportunities for collaboration. Key areas of focus this past year have included:

- Hosting a Climate Summit focused on tribal lands, and working with tribes to address climate action, vulnerability and resilience planning.
- Discussions about climate change, climate adaptation planning, and implementation of projects.
- Sharing tools, techniques and approaches.
- Seeking opportunities to advance environmental justice.
- NEFP's nature-based infrastructure and habitat work group has been focusing on linking beneficial use of dredged materials with project opportunities. Also focused on increasing understanding of the challenges and barriers to these efforts. The goal is to have on the ground projects to implement.

Gulf of Maine Council

Prassede Vella provided the following updates during the meeting and in the briefing packet on behalf of the Gulf of Maine Council.

GOMC July 2022 Meeting

The Gulf of Maine Council hosted an in-person meeting in Portland, Maine on July 28 and 29, 2022.

Presentations and discussion covered the following topics:

- Coastal and marine spatial planning - U.S. and Canada Administration priorities (e.g., 30 x 30 efforts) and offshore wind in Maine, New Hampshire, Massachusetts (both Gulf of Maine Intergovernmental Renewable Energy Task Force process and individual state activities), as well as in Nova Scotia.
- NERACOOS development of a regional ocean acidification monitoring plan, expansion of ocean acidification monitoring by utilizing ships of opportunity, and pelagic ecology observing and modeling program.
- Project accomplishments and opportunities for collaboration associated with the *Regional Collaboration to Address Marine Debris in the Gulf of Maine* (partners include NOAA, GOMC, Blue Ocean Society, Center for Coastal Studies, Huntsman Marine Science Centre, Surfrider Foundation, and Urban Harbors Institute).
- Overview of initiatives at the Gulf of Maine Research Institute's Climate Center in Portland, Maine and discussion about opportunities for collaboration between GMRI and GOMC.
- Overview of The Gaia Project based in New Brunswick and discussion about their innovative approach to empowering youths to take action on climate change through education.

GOMC 2022 Awards Program

During a ceremony hosted by the Nova Scotia Department of Intergovernmental Affairs and the Maine Department of Marine Resources in Portland, Maine on the evening of July 28, 2022, the Gulf of Maine Council presented international awards to honor individuals, businesses and organizations that have made a significant difference in protecting the health and sustainability of the Gulf of Maine watershed. The 2022 awards ceremony recognized 13 award winners from Canada and the United States whose volunteer and professional efforts have supported the Gulf of Maine Council's binational collaboration to protect the

unique habitat, marine life, and economic resources of the Gulf of Maine ecosystem. Highlights for 2022 award winners are available at: [GOMC Awards](#).

Regional Collaboration to Address Marine Debris in the Gulf of Maine

With funding from the National Oceanic and Atmospheric Administration's (NOAA) Marine Debris Program, the Gulf of Maine Association continued working in partnership with NOAA, Gulf of Maine Council, Urban Harbors Institute, Surfrider Foundation, Center for Coastal Studies, Blue Ocean Society for the Marine Environment, Huntsman Marine Science Centre and the five jurisdictions bordering the Gulf of Maine to implement an international collaborative approach for addressing marine debris in the Gulf of Maine watershed.

Since launching the program in October 2021, partners have implemented 282 coastal cleanups, removed 23,335 lbs. of debris from the environment, conducted detailed marine debris tracking, hosted a variety of outreach and awareness programs, and pursued innovative initiatives that engaged volunteers, businesses, government agencies, students, industry, and community partners in addressing marine debris throughout the Gulf of Maine.

The project team participated in an international forum with government and non-governmental partners from US and Canada to share information and identify opportunities for new collaborative efforts during the Gulf of Maine Council's July 2022 meeting in Portland, Maine. During September 2022, several team members attended the 7th International Marine Debris Conference in Busan, South Korea where they presented on marine debris policy and program topics and hosted a poster session about the project. More information about the project is available: <https://www.gulfofmaine.org/public/marine-debris/>, or on [Twitter](#).

Funding for this project was awarded by NOAA's North America Marine Debris Prevention and Removal Grant program which funds projects that prevent and remove debris in Mexico and the US-Mexico and US-Canada border areas. This two-year project is expected to leverage an additional \$448,153 in non-federal matching support to expand the scope of regional efforts to reduce marine debris in the Gulf of Maine.

GOMC Next Meeting

The Gulf of Maine Council will host a half-day virtual meeting of the Council and Working Group in December 2022. Topics for the meeting will include development of the next 5-year Framework for Action which highlights GOMC vision, goals and outcomes; as well as updating the GOMC 2-Year Work Plan which highlights initiatives and projects.

NOAA Office for Coastal Management Updates

NOAA's Office for Coastal Management provided the following updates as part of the briefing packet.

Geotools – Registration and Call for Abstracts

Registration is now open for Coastal Geotools, which will be held February 6 to 9, 2023, in Charleston, South Carolina. Visit the [Coastal Geotools website](#) to register or submit your abstract.

New Products on Digital Coast

- [Climate Explorer](#) – Explore how climate is projected to change in any U.S. county

- [AccessAIS](#) – Access and download AIS Vessel Traffic data
- [Funding and Financing Resilience](#) – Webinar 4: Spotlight on Building Capacity in Communities to Access Funding

New Stories

- [Wade into Estuary Recreation at a NOAA Research Reserve](#)
- [NOAA Helps Maine Communities Assess, and Expand, Working Waterfront Economy](#)
- [NOAA-Supported Series Brings First Generation College Students into the Fold](#)
- [Blue Plan Maximizes Coastal Coordination, Minimizes Conflict](#)

Upcoming Events

- [Seven Best Practices for Risk Communication](#), November 9, 2022. 1:00 to 2:30 p.m. Eastern.

Digital Coast Academy: Trainings and Learning Products

Engagement

- QUICK REFERENCE. [Planning and Facilitating Hybrid Meetings](#) handout provides tips for facilitating meetings with a combination of virtual and in-person participants. You can find more resources on the [Meeting Engagement Tools](#) page.
- QUICK REFERENCE. [Using Inclusive Language in Meetings](#) handout provides tips for including language that helps make your meetings more welcoming and productive.

Funding and Financing Coastal Resilience

- RECORDED WEBINAR. [Funding and Financing Resilience, Webinar 4: Spotlight on Building Capacity in Communities to Access Funding](#): In many coastal communities, particularly those that are small or under-resourced, it can be difficult to identify, access, and administer the funding necessary to invest in coastal resilience. Don't miss this opportunity to hear from two organizations working with communities to overcome these barriers to funding and financing resilience projects (part of the [Funding and Financing Coastal Resilience Online Series](#)).

Resilience

- CASE STUDY. [Developing the Keweenaw Bay Indian Community Hazard Mitigation Plan](#): The [Keweenaw Bay Indian Community](#) developed their hazard mitigation plan in partnership with the Western Upper Peninsula Planning and Development Region, and with guidance from the [Dibaginijigaadeg Anishinaabe Ezhitwaad: A Tribal Climate Adaptation Menu](#), a framework for integrating Indigenous and traditional knowledge and practices into climate adaptation planning. Dione Price and Rachael Pressley's combined knowledge and experience helped guide their approach to facilitating an inclusive hazard mitigation planning process that ensured Indigenous culture, knowledge, science, kinship, and perspectives were incorporated into the plan.
- GUIDEBOOK. The NEW [Application Guide for the 2022 Sea Level Rise Technical Report](#) was developed to assist decision makers and coastal professionals with applying and integrating the information in the [2022 Sea Level Rise Technical Report](#) into local sea level rise planning and adaptation decisions.

Risk Communications

- TRAINING. [Seven Best Practices for Risk Communication](#), November 9, 2022, 1:00 to 2:30 p.m. Eastern. This 90-minute interactive training introduces participants to seven best practices, numerous techniques, and examples for communicating about hazards. Space is limited.

Additional trainings and on-demand products can be found on the [Digital Coast Academy](#) website

Bureau of Ocean Energy Management (BOEM) Updates

Lean Bullin of BOEM provided the following updates as part of the meeting briefing packet.

10/26/2022 | Note to Stakeholders

[BOEM Seeks Public Comment on Proposed Guidance for Submission of Offshore Wind Project Plans](#)
(<https://www.boem.gov/newsroom/notes-stakeholders/boem-seeks-public-comment-proposed-guidance-submission-offshore-wind>)

10/26/2022 | Note to Stakeholders

[BOEM Encourages Nominations for New National Academies Committee for Offshore Wind Energy and Fisheries](#). (<https://www.boem.gov/newsroom/notes-stakeholders/boem-encourages-nominations-new-national-academies-committee-offshore>)

10/21/2022 | Press Release

[BOEM and NOAA Fisheries Announce Draft North Atlantic Right Whale and Offshore Wind Strategy](#)
(<https://www.boem.gov/newsroom/press-releases/boem-and-noaa-fisheries-announce-draft-north-atlantic-right-whale-and>)

09/27/2022 | Note to Stakeholders

[You're Invited: Public Meetings on Draft Environmental Analysis for Proposed Wind Energy Project Offshore Rhode Island](#). (<https://www.boem.gov/newsroom/notes-stakeholders/youre-invited-public-meetings-draft-environmental-analysis-proposed>)

09/16/2022 | Note to Stakeholders

[BOEM Enhances its Processes to Identify Future Offshore Wind Energy Areas](#).
(<https://www.boem.gov/newsroom/notes-stakeholders/boem-enhances-its-processes-identify-future-offshore-wind-energy-areas>)

08/18/2022 | Press Release

[Biden-Harris Administration Continues Offshore Wind Momentum, Announces Next Steps for Gulf of Maine](#). (<https://doi.gov/pressreleases/biden-harris-administration-continues-offshore-wind-momentum-announces-next-steps-gulf>)

May 2022 | Fact Sheet

[Gulf of Maine Environmental Studies Overview](#).
(https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/GoME%20Environmental%20Studies%20Fact%20Sheet_May2022.pdf)

NATIONAL UPDATE FROM WHITE HOUSE OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Deerin Babb-Brott, Assistant Director for the White House Office of Science and Technology Policy provided the following updates regarding federal ocean policy initiatives.

Growing Federal Recognition and Support for Regional Ocean Partnerships

- Support for regions increasingly reflected in policy and budgets
- Increases in President’s budget in last Administration for ROP/data portals
- Ocean Policy Committee (OPC) authorizing legislation directs engagement and support for regions and ROPs specifically
- \$56m/5 years in the IJA
- OPC will build on NE, Mid-A, GOMA, WCOA examples as sources for:
 - Lessons learned, engagement practices and data portals as national models
 - Leadership in building national policy around regionally defined and implemented solutions

Ocean Climate Action Plan (OCAP)

- An urgent and “all-hands-on-deck” response to tackle the climate crisis
- Uses ocean-based solutions to mitigate and adapt to climate change
- Focus across ocean, coast, and Great Lakes
- The OCAP will:
 - Include a summary of Federally-planned actions and their benefits
 - Identify gaps in knowledge and application of knowledge
 - Recommend actions to advance the effectiveness of the Nation's response to climate change

Examples of Ocean-Based Solutions

- Green shipping
- Climate-ready aquaculture and fisheries
- Harnessing ocean renewable energy
- Protecting and restoring ecosystems that sequester carbon (blue carbon)
- Supporting biodiverse ecosystems
- Expanding the extent and level of protection of marine protected areas
- Pursuing ocean-based carbon dioxide removal

Guiding Questions

- Critical Knowledge
 - What ocean-based climate solutions should be considered and over what time scales?
 - What are specific examples of ocean-based climate mitigation and adaptation activities that the United States should seek to advance?
 - Which are higher priorities? Should any be avoided?
- Knowledge, Science, and Technology
 - What kind of research is needed to implement and evaluate the effectiveness and impacts of ocean-based climate solutions?
 - How can Indigenous Knowledge inform solutions?
 - What are important questions, issues, and unknowns that need to be addressed?
- Environmental Justice, Diversity, Equity, and Inclusion
 - How can the benefits of ocean-based climate solutions be shared equitably?
 - How should we engage communities in local implementation?

- How should we ensure that ocean-based climate solutions are implemented in ways that do not harm underserved communities?
- Partnerships and Collaboration
 - What solutions can/should come from outside of government?
 - Where and how can the Federal government partner with external stakeholders across regions and sectors to effectively mitigate and adapt to climate change through ocean-based climate solutions?
 - What elements or ideas can the OCAP include to strengthen government-to-government relations with Federally-recognized Tribal Nations in the implementation of the plan?

Timeline

- OCAP Federal Register Notice (87 FR 60228) Federal Register Notice: <https://www.federalregister.gov/d/2022-21480>
 - Published on October 4
 - Responses due by 11:59 PM eastern time on November 18, 2022. Email ocean@ostp.eop.gov, subject “RFI Response: OCAP”
- Tribal Engagement
 - Alaska Federation of Natives – Listening Session on 10/22
 - National Congress of American Indians – Presentation to the Climate Action Task Force on 10/30
 - Formal Consultation December 13
 - Goal: Release the OCAP in January 2023

National Strategy for Sustainable Ocean Economy

- U.S. joined the High Level Panel for a Sustainable Ocean Economy; key commitment is to develop a National Sustainable Ocean Plan to sustainably manage the U.S. EEZ within 5 years
- The purpose of the Plan is to describe actions by which the U.S. can achieve greater sustainability of the ocean economy
- The Plan will:
 - Build from Federal, tribal, state, regional, and local management priorities and actions
 - Identify needs and opportunities to support private sector, non-profit, and public engagement/initiative
 - Identify key actions to advance sustainability
- Will first develop a National Strategy: allows for national engagement in developing a national vision for a sustainable ocean economy and high-level goals and a process for developing a sustainable ocean plan
- To develop the National Strategy, the OPC will:
 - Consult with Tribes;
 - Engage key regional entities –R/As, FMCs, ROPs, and others;
 - Engage ocean stakeholders broadly, including private and non-profit sectors
 - Engage ROPs, FMCs, private sector, others
- Not a new regional ‘sustainable ocean economy’ visioning exercise: regions and regional entities already define the terms through their priorities and actions – those will form the content
- CZMA-ish model: Nationally consistent objectives and benefits defined and achieved by state/regionally specific actions

- What are the key issues associated with NROC' vision of a sustainable ocean economy, what does NROC want to accomplish, and what does it need to do so?
- NROC can leverage its ocean and coastal management experience, priorities, and current workplans and use the National Strategy to highlight and drive needed action to help accomplish its objectives

Potential themes:

- Ocean food; ocean energy; ocean-based tourism; ocean transportation; new ocean industries; seabed mining; greenhouse gas emissions; marine and coastal ecosystems; ocean pollution; equity and environmental justice; ocean literacy and skills; economic valuation of the ocean's natural capital; ocean science, technology, and data; ocean finance; other?

Regional Data Priorities and Best Practices

- Regional data priorities
- Best practices for tribal consultation
- Best practices for stakeholder engagement

Key Discussion Points

- Does the US have any plans to ratify the Law of the Sea Treaty?
 - Monica Medina at the State Department would be the best person to connect with on this topic.
- How will the national strategy for a Sustainable Ocean Plan be implemented across federal agencies?
 - US is in the preliminary planning phase now. Collaborating with states on all aspects of implementation is a key priority. Sustainable strategies are being implemented across multiple agencies in the federal government. Examples include: sustainability is being factored into the GDP for the first time, and the Climate Ready Fisheries program is working to proactively understand management implications of shifts in ocean species.
 - Identifying top priorities as expressed by Regional Ocean Partnerships and states will help guide a realistic timeline for implementation that focuses on addressing key priorities first.
 - The plan also prioritizes:
 - Incorporating indigenous knowledge into our understanding about how we work
 - Incorporating the latest science and technology into research, monitoring and solutions
- Will there be any new announcements about the sustainable ocean plan at the COP 27?
 - One recent announcement was the Green Shipping Challenge co-sponsored by Norway and the United States. This initiative will help mitigate pollution associated with shipping emissions. New announcements will be made via the communications office.
- Does the national strategy include a plan for devolution to regional or local authorities for sea bed use or licensing?
 - Not yet, but the best way to raise awareness about the need for this would be to bring it forward as a recommendation during the outreach process that will guide the plan.

NROC INFRASTRUCTURE INVESTMENT AND JOBS ACT (IIJA) WORKING SESSION – OVERVIEW

Nick Napoli provided an overview of NROC's proposed IIJA-funded projects to be implemented by NROC's three primary committees (Coastal Hazards and Resilience, Ocean and Coastal Ecosystem Health, and Ocean Planning).

Context

- NROC has operated since 2005 with three Committees that reflect shared regional priorities

- Coastal Hazards Resilience
- Ocean and Ecosystem health
- Ocean Planning
- NROC hosts many crosscutting initiatives, including the Northeast Ocean Data Portal, Integrated Sentinel Monitoring Network, & the Regional Wildlife Science Collaborative
- NROC develops work plans every two years; the most recent work plans are the basis for the projects being submitted for IJA funding
- Important to note that many subcommittee activities and projects are likely relevant to multiple committees and NROC priorities
- In year 1, staff will work with the committees to update the work plan for five years to ensure years 3 through 5 build on activities and investments in years 1 and 2

Coastal Hazards Resilience Committee Projects

1. Establish a water level sensor community of practice in New England
2. Advancing living shorelines in New England (Phase 3)
3. Develop approaches for integrating updated sea level rise projections into planning tools and policies

Ocean and Coastal Ecosystem Health Committee Projects

1. Update the ISMN Science and Implementation Plan
2. Advance mapping and monitoring of coastal vegetation and estimates of blue carbon stores
3. Develop a regional system for monitoring ocean and coastal acidification
4. Identify high priority area for comprehensive seafloor mapping and advance mapping of those areas

Ocean Planning Committee Projects

1. Advance interjurisdictional coordination and the use of best practices in ocean planning
2. Upgrade and enhance the Northeast Ocean Data Portal website, map interfaces, data services, and IT infrastructure
3. Update marine life data on the Northeast Ocean Data Portal and conduct new analyses that assess changes over time and inform the wildlife and habitat components of the ISMN
4. Update and reorganize the commercial fishing data on the Northeast Ocean Data Portal

WORKING SESSION 1: NROC COASTAL HAZARDS RESILIENCE COMMITTEE

Coastal Hazards Resilience Committee (CHRC) Co-Chairs: Julia Knisel, MA CZM; Dani Boudreau, NOAA; and Gavin Jackson, CT DEEP. Session focused primarily on NROC's plans to establish a water level sensor community of practice. Julia also provided a brief overview of the CHRC plans to advance living shorelines and improve sea level rise planning.

CHRC projects to be funded via IJA.

1. Establish a water level sensor community of practice in New England
 - Budget: \$187,000
 - Duration: 2 years
2. Advancing living shorelines in New England – Phase 3
 - Budget: \$170,500

- Duration: 2 years
3. Roundtable: Approaches for integrating updated sea level rise projections into planning tools and policies
- Budget: \$27,500
 - Duration: 1 year

CHRC Project 1 - Establish a water level sensor community of practice in New England

Julia Knisel (MA CZM) and Jackie Motyka (NERACOOS) provided an overview of the proposed water level sensor project.

Project Need

- More localized, real-time water level data to monitor storm surges and sea level rise
- Inform storm awareness / response, coastal inundation modeling, and planning

Project Tasks

- Host a two-day workshop including a showcase of low-cost sensors available / networks, and regional discussion on sensor requirements, locations and data management
- Develop a brief fact sheet on sensor types, costs and deployment tips
- Purchase and deploy a variety of sensors across the region for testing of performance over water and land during fall and winter storm season, data transfer, and data quality

Project Timeline

- Winter 2023: Contact vendors, plan workshop
- Spring 2023: Conduct workshop, select locations (include outreach to EJ communities and tribal partners) and sensors, develop fact sheet
- Fall 2023: Purchase and deploy sensors, monitoring data

Project Outcomes and Products

- Increased awareness of cost-effective sensors that are suitable for New England conditions (e.g., tides, weather, coastal development, etc.)
- Fact sheet on water level sensor types, selection and deployment
- Establishment of a pilot sensor network across the region
- Summary of findings from pilot deployment of sensors

Current Water Level Monitoring

- NOAA has a network of 18 stations located from Northern Maine to Long Island Sound.
- USGS has water level stations for tides and streams with hundreds of gauges located throughout the region
- Looking across existing coverage is helpful for identifying gaps

Low-Cost Sensors

Federal programs provide a federal foundation for water level monitoring. This project will explore addition of low-cost sensors to expand existing coverage. Examples of low-cost sensors include ultrasonic flood sensors (Floodnet), and Divirod water level sensors (US Harbors), and ultrasonic flood sensors (Hohonu). Goal is to complement existing sensors. There will be 20 additional Hohonu sensors deployed across Maine and New Hampshire in the near future. NERACOOS also provides coverage for some gaps.

Data Storage and Analysis

- Multiple local initiatives observing or planning to observe coastal water levels
- Water level data archives and data communications currently not implemented consistently
- NERACOOS and NOAA OCM are collaborating on a new data management initiative to address this discrepancy. New Solution:
 - Easily access data from multiple providers in one location
 - Integration of low cost off the shelf systems
 - Data integration and QA/QC data, applying Quality Assurance of Real-Time Ocean Data (QARTOD) protocols
 - Standardized data products serving multiple end-users
 - Will include effort to include mapping for community-based monitoring

USGS Program Overview: Surge Wave and Tidal Hydrodynamics Network (SWaTH)

Jon Morrisson provided an overview of the USGS Coastal Water Level Monitoring program.

USGS Surge Wave and Tidal Hydrodynamics Network (SWaTH)

- Network of stations along the East Coast (developed after Hurricane Sandy)
- Pre-installed infrastructure with stations surveyed to common NAVD 88 Datum
- Long-term publicly accessible database and viewer
- Program allows for rapid deployment of monitoring with results available within about a day of storm events
- Consists of a variety of technologies - high water marks, short term flexible low-cost sensors, high frequency short term sensors, rapid deployment short-term real-time gages, and continuous real-time USGS gages
- The real-time equipment can be configured with a variety of telemetry platforms including satellite and cell modem
- Several locations that are set up on transects from the shoreline inland
- Flexible low-cost methods for water level data collection
 - Hobo Loggers 1 hertz or longer
 - True Blue Loggers 4 hertz
 - High-water marks validated with surveyed points quickly

Data Collection Methods

- Rapid Deployment Gages (RDG's) flexible network, install quickly and transmit data in real-time
- USGS permanent tidal water elevation only gauges
- USGS WaterAlert allows for public to get notifications
<https://accounts.waterdata.usgs.gov/wateralert/A>

SWaTH Network for New England

- About 200 stations in the region (CT through Maine)

SWATH Network long-term database with searchable viewer application

- Allows viewers to see storm information for various sites over time
- Hydrographs available for each sensor

- <https://www.usgs.gov/mission-areas/water-resources/science/surge-wave-and-tide-hydrodynamics-swath-network>

Other USGS Products and Publications Related to the Network

- <https://wim.usgs.gov/geonarrative/newenglandnoreaster2018/>
- <https://www.usgs.gov/publications/documentation-and-mapping-flooding-january-and-march-2018-noreasters-coastal-new>

Key Discussion Points

What are we trying to accomplish within NROC's new water level sensor project that's not already covered?

- NROC's project would provide new information about remotely sensed overland flow, and develop a more comprehensive local understanding of water levels to support understanding of sea level rise trends and inform coastal inundation modeling. The project would also create a much-needed community of practice to raise awareness about sensors available through fact sheets, and provide case studies to inform lessons learned.

Involvement from partners / community

- NROC would identify organizations and their needs through discussions at the two-day workshop. This project would enhance capacity for local organizations.
- Partners will include NROC, NOAA, USGS, local communities, state coastal programs, federal and state DOT, GMRI, NERACOOS and others.
- Involving local level representatives along with state reps would be valuable. NROC CHRC will investigate community needs as part of a survey that will inform the workshop discussion.
- Applying equity lens is needed to ensure various perspectives are provided during upfront planning.
- Federal and state highway departments will be at the table to provide input on technology and areas that need sensors. Federal DOT has been at the forefront of dynamic flood risk modeling in the region which led to WHOI deployment of sensors in Maine and New Hampshire.

Identification of priority locations

- We need to think about which areas are most vulnerable now / which areas are we already seeing overland flow. States and municipalities need to inform location of sensors – they understand the needs and may be involved with long-term costs and maintenance of the sensors.
- Saugus (EJ community in Massachusetts) is an example where water level data can inform tide gate management efforts. The Town of Saugus could not afford the kind of water level logger that should have been required to monitor water levels behind a repaired tide gate at Ballard Street. Other communities are using more sophisticated tidal monitoring devices behind their tide gates.
- A sensor on the Saugus River would allow a better understanding of potential tidal amplification that may be happening due to the historic filling of wetlands. The communities are at risk of flooding during storm surges. EPA's Rumney Marsh water level study for the Pines River in Saugus and Review will be released in November or December.
- National Park Service is looking at ways to supplement water level data at national parks. They have purchased some of the same water level and storm sensors that USGS uses (but would like to talk about how to install and tie those into the USGS site) and are also looking at NTRIP stations located within view of the water for long-term water level tracking.
- Site selection should consider equity concerns.

Sensors – technology, ownership, operations and management

- Identifying the types of sensors will inform how much time is needed for QAQC etc. At the same time, identifying the purposes / uses for the sensors will also inform selection.
- NERACOOS as a policy does not own products – the team is still figuring out the mechanism to be used for owning and managing sensors. Some companies provide sensors but manage the data. The team still needs to explore the best approach.
- Municipalities are often the end users of the data so having their involvement upfront is important since they may be responsible for operations and maintenance.

Data collection, management, analysis, and dissemination

- Various organizations (NOAA, USGS, NERACOOS etc.) conducting monitoring need to be communicating and collaborating with each other so that the Northeast region can benefit from collective results of the data.
- Common sets of data are needed to facilitate translation. Project team is working to ensure that the project will result in standardized products and data. Sensors will be classified in various tiers (Tier 1 – NOAA and USGS sensors, Tiers 2 and 3 would be associated with other data sets).
- A collective repository is needed for data collection and methods for making the information available need to be determined. Need to ensure capacity and procedures for accessing, managing and uploading the data.
- Technical procedures for sensors, data collection, and analysis will reflect the different uses / applications / narratives for the data being collected.
- During the two-year project, the team will identify the sensors and deploy them in the region, and work with NERACOOS, GMRI and NOAA on data management as the data starts flowing in. A workshop on data analysis would take place during a future second phase of the project. IJA will allow for second proposals after the first two years.

Block Island, RI Example

- Block Island Sea Level Rise Committee raised concerns about the lack of monitoring and got local funding to deploy four low-cost sensors. Data was passed on to students who analyzed data and passed it back to the community. This system worked well and can provide a useful case study. Data was also provided to NOAA where they analyzed and sent information back to the community.

SWaTH network funding and capacity for state deployment

- USGS receives funding for the network from FEMA or USGS mission funding
- States would need to pay for services on a reimbursement basis if they wanted to request deployment for a particular storm

CHRC Project 2 - Advancing living shorelines in New England - Phase 3

Purpose: continue to advance implementation of effective living shoreline projects

Tasks:

- Host a forum on regulatory challenges and mitigation opportunities
- Host a workshop on climate change impacts and potential for habitat conversion for shoreline stabilization/flood control
- Assess the success of pilot projects and identify best practices

- Conduct outreach and engagement with property owners, communities, engineers, contractors, etc. to share products of Phase 2 and identify additional lessons learned

Contract: The Nature Conservancy

Possible Partners: USACE, USFWS

Products:

- Refined regulatory guidance
- Workshop summary with potential suitable habitat tradeoffs
- Updated guide on monitoring techniques
- Possible fact sheet on effective design and construction tips

CHRC Project 3 - Roundtable: Approaches for integrating updated sea level rise projections into planning tools and policies

Purpose: share and apply updated sea level rise projections and visualization tools

Tasks:

- Host a NOAA training on new projections and guidance on communicating risk
- Host a roundtable discussion on best practices for interpreting and applying projections for risk assessments, projects, plans, policies and regulations

Contract: TBD

Partner: NOAA (& others)

Product: summary of roundtable discussion

Outcomes:

- Increased understanding of sea level rise modeling and projections
- Strengthened state and local projects, policies, plans and regulations

WORKING SESSION 2: NROC OCEAN AND COASTAL ECOSYSTEM HEALTH COMMITTEE (OCEH)

NROC OCEH Committee Co-Chairs: Steve Couture, NH DES, Regina Lyons, EPA, Jake Kritzer, NERACOOS

Work of the committee is aligned with several subcommittees. Presentations and discussion focused on two NROC projects slated to receive IJA funds: Seafloor Mapping in the Gulf of Maine, and Coastal and Ocean Acidification.

Habitat Classification and Ocean Mapping (HCOM) Subcommittee

HCOM Leadership: Mark Finkbeiner, NOAA Office for Coastal Management; Todd Callaghan, MA Coastal Zone Management; Dan Sampson, MA Coastal Zone Management; and Claire Enterline, Maine Coastal Program.

NROC Project Update and Overview of Proposed Work: Gulf of Maine Seafloor Mapping

Claire Enterline provided an update regarding implementation of HCOM's workplan and plans to use IJA funds to advance the Seafloor Mapping in the Gulf of Maine.

Gulf of Maine Seascape Map (update regarding prior work)

- Provides a regional view of the Gulf of Maine from the highest annual tide out to 24 nautical miles
- Based on Coastal and Marine Ecological Classification Standard (CMECS)
- Bathymetry derived using BRESS, vector ruggedness model, and topographic position index
- Will be available on the Northeast Ocean Data Portal and the Gulf of Maine portal spring 2023

- Also provides stand-alone layers for manually-derived geoforms:
 - Moraines (1.100k scale)
 - Basins
 - Cobble-Boulder Complexes
 - Ebb Tide Deltas
 - Paleodeltas
 - Shelf Sediment Shoals
 - Estuarine Sediment Shoals

NOAA and MA and ME Coastal Programs have been working with Tetra Tech to update and expand the Seascape Map to include:

- Newly mapped bathymetry in Cape Cod Bay and Maine coast
- South of Cape Cod to RI border
- Areas beyond 24nm with high-res bathymetry data

Multi-Partner Prioritization of Seafloor Acquisition Needs (proposed focus for IJA funds)

Since 2012, significant areas of the Northeast seafloor have been surveyed, but large areas still lack adequate information

- HCOM will engage in a participatory process to identify priority areas for new data collection using a National Centers for Coastal Ocean Science (NCCOS) Online App Support Tool
- Data collection types considered (initially):
 - Bathymetry, seafloor hardness, sediment composition & benthic community structure

Where do we prioritize seafloor surveys?

- Over past 10 years, efforts to collect data for areas that were lacking. Still significant areas in the Gulf of Maine that are lacking data – these areas encompass locations being considered for development of offshore wind
- IJA funds would focus on data collection to cover these priority areas
- IJA funds will also be used to identify other priorities for mapping

Methods for participatory effort to prioritize mapping areas

- Participatory GIS (PGIS) used to survey the mapping interests of a diversity of stakeholder organizations
- Respondents prioritize specific areas, needs, and reasons for future mapping
- Selections from the respondents are summarized using descriptive statistics, cluster analysis, and other approaches

Prioritization tool PGIS – where, when, what why

- Developed by Ken Buja using Web AppBuilder for ArcGIS
- Customizable with local input
- Customizable spatial framework
- Pre-populated pull-down menus for easy attribution
- Participants use the tool to identify what areas are priorities and why (are they related to aquaculture, offshore wind or other issues of concern)
- Responses saved as they are made
- Automated QA/QC enforcement

Provide Input in the CMECS Update Process (current effort)

- Structured catalog of ecological terms that provides a framework for interpreting, classifying, and inter-relating observational data
- Describes coastal and marine environments from the head of tide in estuaries to the depths of the oceans
- HCOM members have been providing input on changes to sediment and geoform classifications including adopting hierarchy adopted by the Gulf of Maine Seascape map

Key Discussion Points

- Information on the nearshore seascape will be very valuable for siting offshore wind export cables. Information will be shared with the public via the portal and the raw model can be provided upon request.
- The Seascape model has been put on the list of layers that BOEM should be using for their processes and to inform siting of cables.
- Overall area of focus includes the entire NROC region. Offshore boundaries for mapping have not yet been determined.
- As part of the outcomes, Tetra Tech will also produce a methodology. All the thresholds and settings for automated processes are already captured in the report.
- In terms of the public prioritizing process (PGIS), HCOM has reviewed their membership list and is working to ensure that representatives from all the appropriate groups (NGOs, government groups, etc.) are given the opportunity to participate.
- Outreach and engagement with tribes should be a high priority for this project as features are extremely important to tribal communities.
 - Recommend starting with the list of federally recognized tribes in the NROC region and tribal environmental coordinators for outreach and engagement. There are other tribes that are not federally recognized as well.
 - NROC's tribal liaison coordinator (to be hired in 2023) will focus on ensuring / expanding this engagement.
 - DOI and EPA tribal connections can help bridge the gap for communications as needed. EPA monthly consult meetings with tribes can provide a forum for presenting this work and asking about priorities.
 - NOAA also has a \$1 million set aside that tribes could use for this or other projects, according to their priorities.
- Where is the data being stored and when will it be processed during the two-year collection period?
 - In addition to data collection, the project also includes processing and submission of data to the [National Centers for Environmental Information](#) (NCEI) which maintains the National Ocean Service Hydrographic Database (NOSHDB). Information will be publicly available on this site.
 - Data collection for the North portion of 'the pistol area' off the coast of Maine is expected to take place from April through August 2023. Data processing will take place on days when the team is not surveying. Data submittal will take place annually, most likely in January or February for the prior year collection efforts.

- Next round of mapping near Martha’s Vineyard and Buzzards Bay is estimated to take about three months.
- The team is currently updating the CEMECS model with data collected over the past two years and will update again after one or two years of new data collection.
- Incorporating the new data into the CEMECS Model would be dependent on securing additional funding.
- Coordination with USDA-NRCS and NPS.
 - HCOM is aware of the work that Jim Turenne and colleagues at USDA-NRCS have been doing with sub-aqueous soils and is looking at their work in terms of how it relates to CMECS.
 - NPS has done some high resolution CMECS mapping off Cape Cod National Seashore and currently completing intertidal areas at Acadia National Park in Maine. Cathy Johnson offered to share this information with the project team.
- Support for NOAA-GARFO EFH permitting.
 - NOAA wants Corps permit applicants to delineate coastal substrate EFH resources for characterizing impacts of proposed permit projects in areas along the coast. The project team has been working with NOAA-GARFO to make sure the next version of CMECS (in-process) is amenable to inform EFH substrate permitting decisions.
- Integrating data from offshore wind developers.
 - Integrating multibeam bathymetry data collected by offshore wind developers into the Seascope model was recommended. This would require BOEM or states to require that developers sharing this information.

NROC Project Overview: Coastal and Ocean Acidification

Jackie Motyka and Emily Silva of NERACOOS provided an overview of proposed projects. OCEH working group for these projects includes members of the Integrated Sentinel Monitoring Network (ISMN), and the Northeast Coastal Acidification Network (NECAN). The proposed projects build on prior work of these two groups. With IJJA-funding, NROC proposes implementing the following four projects:

- Organize and host regional workshops and webinars to develop a regional OCA monitoring plan
- Integrate OCA data into the Northeast Ocean Data Portal and NERACOOS Ocean Climate Tool
- Create a challenge fund to accelerate implementation of the OCA monitoring plan
- Initiate new monitoring, including: microhabitat characterization of the rocky intertidal (Pole to Pole) and utilizing fishing vessels as ships of opportunity (eMOLT)

Develop a Regional OA Monitoring Plan for the Northeast

A small planning committee has been established including members of the NECAN Steering Committee. A kick-off meeting was held on November 2, 2022 to explore questions about how the plan should be developed (monitoring locations, purpose, methods, gaps, etc.).

- Three theme-based webinar series (with three webinars in each series) will focus on answering questions about the plan
- Webinars will take place over five to six months beginning in early 2023
- Following the webinars, a workshop will be held in person in the fall of 2023
- Team will contract with someone to write the plan based on information gathered throughout the webinar series and the workshop

Integrate OA Data into Existing Data Products

- OCA data will be integrated into the Northeast Ocean Data Portal and the NERACOOS Ocean Climate Tool to provide spatial and temporal perspectives of ocean acidification and change over time. At present, OCA data cannot be readily viewed by all interested users. The following platforms in the region are ideally suited to serve those data for complementary purposes.
 - NROC's Northeast Ocean Data Portal
 - Inventory of existing OCA monitoring efforts
 - Provide spatial understanding of efforts and overlapping initiatives
 - Increasing awareness and data discovery
 - NERACOOS's Ocean Climate Tool
 - Integration of OCA data into data system and product
 - Provide increased understanding of real-time observations
 - Increasing understanding of trends and data discovery
 - Both platforms would be adapted to present OCA data alongside the other variables already incorporated. Doing so will illuminate data gaps which can be used to justify expanding monitoring coverage, and will also demonstrate to partners how the data they collect will be made accessible.

Create a Challenge Fund

- A portion of funds will be set aside to be matched by collaborative partners to implement aspects of the OA monitoring plan.
- Propose hosting some type of competitive RFP process
- Important considerations:
 - Must advance OCA regional monitoring plan
 - Must have matching funds to deploy asset(s)
 - Geographically diverse
 - Consideration of underserved populations and communities

Expanding Existing Monitoring Initiatives

Initiate new monitoring activities, including microhabitat characterization in the rocky intertidal zone and utilizing fishing vessels as ships of opportunity (SOOPs).

Rocky Intertidal Monitoring

- Propose expanding existing pan-Atlantic effort to understand temperature changes in the rocky intertidal, specifically shellfish (uses 'robo mussels')
- Multi-stressor impacts to commercial species
- Sensors are 2cm and can be deployed for two years
- Deployment ~25 sensors over the two years

Bottom Water Monitoring – Environmental Monitoring on Lobster Traps (eMOLT)

- Propose expanding deployment of OA Sensors on lobster traps through an existing network of commercial vessels
 - Already have +20,000 hourly observations over two decades
 - Integrated into models and stock assessments
 - Critically important for understanding bottom conditions

- Collaborating with WHOI on new low-cost OA sensor that could be added to the eMOLT program
 - Testing continues in Year 1
 - Deployment of the sensors on lobster traps in Year 2

Overall timeline for the four OA projects

Year 1	Year 2
1. Webinar series and workshop	1. Regional OCA monitoring plan
2. Data integration	2. Product implementation
3. Challenge Fund RFP released	3. Challenge fund implementation
4. Test and deploy sensors	4. Deploy sensors

Key Discussion Points

Implementation of the Challenge Fund

- Funding of \$125,000 focuses on OA sensor acquisition. Funds need to be spent within two years.
- Following discussion, it was determined that an RFP would most likely not be the best approach for distributing funds targeted to the purchase of OA sensors.
- A more streamlined process that reflects priorities identified in the OA monitoring plan should be utilized.
- States should be involved in identifying priorities for how the funds should be targeted in the region. States and / or partners would be asked to submit proposals for funding.
- The timeline for developing the OA monitoring plan may need to be moved up in order to inform priorities and proposals for utilizing the Challenge Fund.
- National Estuary Program (NEP) / National Estuarine Research Reserve Systems (NERRS) are likely partners as they already have some experience and capacity for this work.
- Depending upon priorities, new sensors could bolster NEP / NERRS existing work, or be placed in other priority areas around the state that don't have any existing OA monitoring.
- Webinar / workshops should highlight existing knowledge and lessons learned to inform selection and placement of new sensors. Examples:
 - EPA funded OA sensors in Casco Bay provide lessons learned about deployment, operations, maintenance, data processing and communication.
 - Massachusetts OA Commission highlights existing knowledge that should inform this project.

Additional OA comments

- MA DEP is pushing a Wetland Permit Program to reduce Total Nitrogen from septic systems with a goal of restoring Essential Fish Habitats (EFH) in coastal embayments. Inshore EFH includes salt marshes and sea grass beds. The OA monitoring program should consider including Nitrogen as a co-stressor.
- It would be valuable for the project team to think about how the OA monitoring plan would interact with other programs and stakeholders strategizing about the role and health of oceans. OA cross-cuts other water quality issues for decision makers.

- Waquoit Bay on Cape Cod might be a good place to deploy OA monitoring equipment (watershed includes Mashpee Wampanoag tribe with indigenous knowledge and Waquoit Bay National Estuarine Research Reserve science and monitoring).

WORKING SESSION 3: NROC OCEAN PLANNING COMMITTEE (OPC)

NROC OPC Committee Co-Chairs: Ted Diers, NH DES; Lou Chiarella, NOAA

OPC Update

- Ted Diers provided introductory comments and noted that there will be offshore wind leasing activity in the Gulf of Maine during the next 12 to 24 months.
- Nick Napoli noted that the OPC is working on bringing in more staff and will then review and update its membership list and schedule a meeting.
- OPC is looking for a new state co-chair to take over for Ted at some point.

Marine Life Data Development

Emily Shumchenia provided an overview of work to date and scope of work for IJA funds. Presentation was followed by discussion to detail next steps and use of IJA funds.

Overview of Work To-Date

- Development of marine life data products accelerated during development of Northeast Ocean Plan and Mid-Atlantic Ocean Action Plan, 2014-2016
- Contract with the Marine-life Data and Analysis Team (MDAT), led by the Duke Marine Geospatial Ecology Lab since 2014
- Individual species data products developed by each MDAT partner entity (cetaceans, birds, fish)
- Summary data products development guided by expert work groups
- Framework for presentation and description of data products on the Northeast Ocean Data Portal

Marine Life Data & Analysis Team (MDAT)

- Duke University Marine Geospatial Ecology Lab (MGEL)
 - Pat Halpin
 - Corrie Curtice
 - Jesse Cleary
 - Debbie Brill
- NOAA NCCOS – Arliss Winship (avian models)
- NOAA NEFSC – David Richardson, Kevin Friedland, others (fish trawl data)
- TNC – Marta Ribera
- States – fish trawl coordinators and data managers

Overview of Work To-Date

FY20 Regional Ocean Data Sharing Funds used to update and maintain products using the latest model outputs and to develop new products based on NROC and MARCO priorities with Marine Life Work Group input

- Updates to North Atlantic right whale (NARW) products and all cetacean summary products (ESA listed species, etc.)
- Avian movement information products
- Fish distribution and range shifts

- Species sensitivity and risk – cetaceans and ship strikes; fish and EMF
- Coordination with RWSC and Project Wildlife and Offshore Wind (WOW) – assessing potential impacts of offshore wind on various species

Potential IJJA Scope

Bring marine life data products up to date and in alignment with new and emerging uses (aquaculture, offshore wind, etc.) of the data products, many of which involve explicit assessments of change and evaluation of stressor impacts

- Implement “MDAT 2.0”
- Will require collaboration and coordination among NROC, MARCO, RWSC, ISMN

Proposed Activities

1. Update cetacean and add new pinniped models (YR 1 and 2)
2. Update avian models and add new avian density forecast models (YR 1 and 2)
3. Add new sea turtle models (Navy and NOAA AMAPPS) (YR 2)
4. New species group products / summary products using models 1-3 above (YR 2)
5. Integrate data from Northeast Regional Habitat Assessment (NEFMC + MAFMC) focal fish species (YR 1 scoping / YR 2 implementation)
6. Innovation (YR 1 Scoping / YR 2 implementation)
 - Looking for input from NROC and partners to develop direction for innovation
 - Products showing change over time for multiple taxa – integration with ISMN and RWSC
 - Distribution/abundance at different scales or analysis windows

Key Discussion Points - Potential IJJA Scope

- What are the key management issues for which the data will be used/applied? How is marine life data being used now and how will it be utilized in the future?
 - MA CZM has identified three key evolving management issues that could be informed by enhanced data: 1) siting of offshore floating pens in the Gulf of Maine, 2) siting of offshore wind facilities, and 3) siting of offshore wind transmission cables.
- What are the areas of overlap with ISMN? How should NROC and ISMN collaborate on marine life data?
 - If there are species that have been identified as particularly sensitive to climate change, those could serve as indicators for shifts over time. This could be particularly relevant to assessing the benthic environment during planning for laying offshore wind transmission cables.
 - Perhaps the maps on the portal could show the most recent and relevant models and ISMN could help summarize and provide context for historic trends over a longer period of time. Links between the portal and ISMN could be used to connect between maps of current distribution and longer-term historic trends.
- What scales (e.g., subregions or basin) would be most informative?
 - For offshore wind siting, data that aligns with lease areas would be extremely helpful. Historic trends about key species looking back five to ten years would be helpful although it's difficult to determine what time frame would be feasible and helpful.
- Other comments / suggestions
 - Interest in updating recreational fishing industry data was expressed.

- NE Data Portal coordinates regularly with BOEM to provide mapping relevant to inform offshore wind planning and siting activities in the Northeast. Efforts include recent development of a Gulf of Maine portal. NH ran RFI outreach activities associated with offshore wind development that utilized the data portal in combination with state agency fisheries information.
- Challenges associated with modeling various sources of data include the projections that people use (they often don't overlap well), and the gridding / resolution. Creation of a community of practice, or BMPs to promote more consistency across data and types of scales used would be very helpful. NE Data Portal could share its parameters to improve the format of data that would be contributed by partners.
- Ability to place longitude and latitude lines on the portal would be helpful.

NROC LEADERSHIP TRANSITION

NROC Co-Chairs Lisa Engler, MA CZM and Betsy Nicholson, NOAA welcomed incoming NROC Co-Chairs: Jeff Willis, RI CRMC, and Rick Bennett, USFWS.

NROC meeting adjourned at approximately 3:30 PM

Meeting summary prepared by Joan LeBlanc, NROC Coordinator

Meeting materials are available under Council Meeting Materials at:
<https://www.northeastoceancouncil.org/library/>