



**NROC Virtual Meeting**  
**Thursday, October 28, 2021**

***8:45 AM – 12:30 PM***

**Meeting Packet**

***REQUIRED - Register Here for Meeting Access:***  
***[Registration Link](#)***

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**Advance Meeting Registration Required**

**Advance registration is required** to participate in the meeting.  
Register here: [Registration Link](#)

**Northeast Regional Ocean Council – Meeting Agenda**  
**Thursday, October 28, 2021 | Videoconference**

8:45 AM	<p><b>Access to Videoconference Meeting Opens</b>  Networking and technology check-in</p>
9:00 AM	<p><b>Welcome, Meeting Overview, and Updates</b>  <i>NROC Co-Chairs: Lisa Engler, MA CZM and Betsy Nicholson, NOAA</i></p> <ul style="list-style-type: none"> <li>• Welcome / Meeting logistics <ul style="list-style-type: none"> <li>– Meeting attendees are invited to share updates and resources via the meeting chat</li> <li>– Highlights from NROC members are found in the briefing book</li> </ul> </li> <li>• Overview of agenda, <i>Lisa Engler, MA CZM</i></li> <li>• NROC Executive Committee Update – Funding Status, <i>Betsy Nicholson, NOAA</i></li> <li>• Highlights from Biden Administration and Congress, <i>Betsy Nicholson, NOAA</i></li> <li>• Key state updates, <i>Lisa Engler, MA CZM</i></li> <li>• NROC Partner Updates (<i>partners highlight one or two key news items</i>) <ul style="list-style-type: none"> <li>– New England Sea Grant Consortium, <i>Michael Triantafyllou, MIT Sea Grant</i></li> <li>– NERACOOS, <i>Jake Kritzer or Jackie Motyka</i></li> <li>– Gulf of Maine Council, <i>Prassede Vella, MA CZM</i></li> <li>– NE Federal Partners, <i>Rick Bennett, US FWS</i></li> </ul> </li> </ul>
9:25 AM	<p><b>Integrating Diversity, Equity, Inclusion and Justice (DEIJ) into Regional Planning Efforts</b></p> <ul style="list-style-type: none"> <li>• Overview of draft <b>NROC work plan to advance diversity, equity, inclusion and justice</b> across NROC efforts, <i>Betsy Nicholson, NOAA</i></li> <li>• NROC partners highlight case studies / tools from the region that help advance DEIJ through planning efforts in the Northeast. <ul style="list-style-type: none"> <li>– <b>EPA Environmental Justice Screening and Mapping Tool</b>  <i>Adam Reilly, Alexandra Dichter, and Deb Cohen, EPA</i></li> <li>– <b>Equity Assessment for Maine Won't Wait: A Four-Year Plan for Climate Action</b>  <i>Jessica Scott, Maine Climate Council, Equity Subcommittee</i></li> </ul> </li> </ul>
10:35 AM	<p><b>NROC Committee Work Plans</b>  Introduction to NROC Work Plan development process, <i>Lisa Engler, MA CZM</i></p> <p><b>Coastal Hazards Resilience Committee – DRAFT Work Plan</b>  <i>Co-Chairs: Julia Knisel, MA, Adrienne Harrison, NOAA, and Kevin O'Brien, CT DEEP</i></p>
11:00 AM	<b>Break</b>
11:15 AM	<p><b>Ocean and Coastal Ecosystem Health Committee – DRAFT Work Plan</b>  <i>Co-Chairs: Steve Couture, NH DES, Regina Lyons, EPA, and Jeffrey Runge, NERACOOS</i></p> <ul style="list-style-type: none"> <li>• <i>HCOM Co-Chairs: Becca Newhall, NOAA, Dan Sampson, MA CZM, Todd Callahan, MA CZM</i></li> </ul>
11:40 AM	<p><b>Ocean Planning Committee – DRAFT Work Plan</b>  <i>Co-Chairs: Ted Diers, NH DES and Lou Chiarella, NOAA</i></p> <ul style="list-style-type: none"> <li>• <i>Nick Napoli, NROC Ocean Planning Director</i></li> <li>• <i>Emily Shumchenia, Regional Wildlife Science Entity (RWSE) Director</i></li> </ul>
12:10 PM	<p><b>NROC Project Highlight: Gulf of Maine Geoform</b>  <i>Claire Enterline, ME DMR, Dan Sampson, MA CZM, and Todd Callahan, MA CZM</i></p>
12:25 PM	<b>Wrap Up</b>
12:30 PM	<b>Meeting Adjourns</b>

**Coastal Hazards Resilience Committee**

1. FY2017 NOAA Coastal Resilience Grant
  - Project: *Increasing Resilience and Reducing Risk through Successful Application of Nature-based Coastal Infrastructure in New England*
  - Total Award: \$999,999 (includes \$50,687 for NROC – project support + general NROC Coordination)
  - Lead: The Nature Conservancy
  - Partners: NROC, ME Coastal Program, NH Coastal Program, NH DES, MA CZM, RI CRMC, UConn / CIRCA, and local partners
  - Funding Period: October 2017 to March 2022 (*includes 18-month extension*)

**Ocean and Coastal Ecosystem Health Committee**

2. FY2018 NOAA / NOS / NCCOS
  - Project: *Developing Generic Predictive Model of Ocean and Coastal Acidification Thresholds from Long Island Sound to the Nova Scotian Shelf*
  - Total Award: \$498,000 (includes \$20,000 for NROC – project support + collaboration with NROC)
  - Lead: NERACOOS
  - Partners: NROC, UMass Dartmouth, UNH, GMRI, Wells NERR, NH Sea Grant, UMaine, others
  - Funding Period: September 2018 through August 2021

**Ocean Planning Committee**

3. EPA
  - Project: *Updating and enhancing coastal vegetation datasets on the Northeast Ocean Data Portal*
  - Award: \$14,520
  - Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor) in collaboration with the EPA and the Blue Carbon Working Group
  - Funding Period: October 2020 - September 2021
4. Moore Foundation
  - Project: *Regional ocean planning activities*
  - Award: \$2.2 million
  - Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor)
  - Funding Period: January 2018 – December 2021
5. FY2020 NOAA (Regional Ocean Data Sharing/Regional Ocean Partnership Funding)
  - Project: *Update marine life data on the Northeast Ocean Data Portal*
  - Award: \$135,000
  - Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor) in collaboration with the Mid-Atlantic Regional Council on the Ocean
  - Funding Period: October 2020 – December 2021

6. 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 – April 2022

7. 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 2021 – September 2022

8. 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

9. Funding for Regional Wildlife Science Entity (Shared with the Mid-Atlantic Regional Council on the Ocean)

*The Regional Wildlife Science Entity (RWSE) will be funded through a mix of member dues, in-kind contributions, grants, contracts, and research funding. RWSE is currently in a startup phase including securing funding and financial commitments to implement the work plan. RWSE currently has secured \$120,000 of outside funding and \$228,640 of in-kind funding (much of the in-kind during the startup phase is from NROC and MARCO). Another \$150,000 of outside funding has been committed. Staff are working to secure committed funds and additional funding commitments.*

## **New England Sea Grant Consortium Update - October 2021**

*By Michael Triantafyllou, MIT Sea Grant Program, October 14, 2021*

The New England Sea Grant Consortium regional research competition on Ocean Renewable Energy was completed. We received 26 preliminary proposals of which 14 were invited to submit full proposals. We received 11 strong full proposals and we were able to fully fund the top 6 of these proposals. Although an announcement of the winners cannot be made at this time, pending approval from the National Office, the process was completed. Each state program will be responsible for managing the projects led by institutions located within their state. Relevant Extension and Advisory staff from each of the seven participating Sea Grant Programs are expected to coordinate with the PIs for a kick-off meeting and subsequent collaboration.

Matt Charette (WHOI SG), Erik Chapman (NH SG), Tracey Dalton (RI SG), Sylvain DeGuise (Connecticut SG), Becky Shuford (NY SG), Michael Triantafyllou (MIT SG), and Gayle Zydlewski (Maine SG)

*Submitted by Jackie Motyka and Emily Silva, NERACOOS*

#### Organizational Update

NERACOOS has been awarded \$3.4 million to sustain their efforts to support the region. The award is the first of a five-year cooperative agreement between NERACOOS and IOOS. This funding will support existing monitoring, modeling and data management efforts, as well as the assessment of future observing assets in Downeast Maine. More information is [available here](#).

#### Operational Update

In partnership with NOAA's CO-OPS and MassDEP we will deploy a new wave buoy in Buzzards Bay as part of the Cape Cod PORTS. The buoy will be located near the Buzzards Bay tower, and we anticipate that the buoy will be deployed in the next 3 months.

A passive acoustic glider operated by Dr. Mark Baumgartner (WHOI) will be deployed this winter along the Maine, New Hampshire, and Massachusetts shoreline to listen for cetaceans. Observations from current and past missions are available at <http://dcs.whoi.edu/>.

#### Northeast Coastal Acidification Network (NECAN)

NECAN submitted one year of a three-year work/funding plan to NOAA OAP in April of this year. The instructions for submitting years two and three of this work plan are expected to come out this fall. This workplan will detail goals and objectives for NECAN over the next three years including new project ideas and regional workshops.

Over the next few months NECAN will be re-evaluating the [implementation plan](#) and creating works plans for the four working groups (Education & Outreach, Industry, Management & Policy, and Science) to align with goals set out in the NECAN work plan to be submitted to NOAA OAP.

NECAN has received funding through RARGOM for a working group to create and distribute an infographic detailing the effects of OCA on commercially important species in the region. Work on this infographic is ongoing and will be shared through the RARGOM and NECAN networks when available.

#### Ocean Acidification Information Exchange

Since its launch in early 2018, the OA Information Exchange has grown to more than 1,400 members representing 64 countries. Additionally, many new "teams" have been started by members, including teams focusing on OCA in the Mediterranean and Latin America, and a team to support the Pier2Peer mentorship program activities. To learn more about the OAIE please contact Julianna Mullen, [julianna@neracoos.org](mailto:julianna@neracoos.org).

*Submitted by GOMC Working Group member Prassede Vella, MA CZM*

### **Regional Collaboration to Address Marine Debris in the Gulf of Maine**

The Gulf of Maine Association has been awarded \$367,839 from the National Oceanic and Atmospheric Administration's (NOAA) Marine Debris Program to partner 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 create an international collaborative approach for addressing marine debris in the Gulf of Maine watershed. Funding 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 begins this fall and will 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.

US and Canadian partners will work together to advance implementation of [NOAA's 2019 Gulf of Maine Marine Debris Action Plan](#) by implementing gulf-wide and targeted actions to remove, reduce and prevent the introduction of marine debris into the Gulf of Maine. The project team brings together experts from throughout the region who will coordinate over 100 coastal cleanups, track marine debris, and reduce the introductions of plastics, fishing gear and other sources of marine debris before they damage fisheries, marine mammals and other natural resources in the Gulf of Maine.

### **Gulf of Maine Council December 2021 Meeting and Awards Program**

The Gulf of Maine Council will host its next virtual meeting on the morning of Thursday, December 9th. Details and agenda are currently under development. On the evening of December 9, GOMC will host a virtual awards program to present 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. Award winners from Nova Scotia, New Brunswick, Maine, New Hampshire, and Massachusetts will be announced in December.

### **Gulf of Maine Council – June 2021 Meeting and Events**

- A virtual joint GOMC Council and Working Group meeting was held on June 22. During the meeting participants shared agency updates, and discussed the opportunity provided by NOAA's marine debris grant award for the provinces and states to work closely together on a joint project. GOMC members also discussed potential opportunities to pursue a special designation and associated US federal funding for environmental protection and monitoring efforts in the Gulf of Maine.
- The Gulf of Maine Council's Coastal and Marine Spatial Planning (CMSP) Committee hosted a forum on June 21, 2021, to discuss the current landscape of coastal and marine spatial planning in the Gulf of Maine and opportunities for continued Canadian / US collaboration. Examples of cross border opportunities discussed included conservation opportunities via the 30x30 in the GOM and data coordination such as sharing AIS data, seafloor characterization, and climate change vulnerability assessments. Presentations from the forum are available on the [GOMC website](#).



**Proposed National Estuarine Research Reserve in Connecticut:**

- Public comment period for the proposed Connecticut National Estuarine Research Reserve closed on October 18, 2021. NOAA is currently considering comments and anticipates making a final decision in January 2022. For more information, visit [NERR Home Page](#) of the CT DEEP website.

**NOAA's Office for Coastal Management is soliciting applications for 3 Fellowship Programs:**

- [NOAA Coastal Zone Management Fellowship & Digital Coast Fellowship](#): Applications for the 2022-2024 Coastal Zone Management & Digital Coast Fellow Cohort are **due to local Sea Grant programs by January 21, 2022**. Any U.S. citizen who will complete a master's or other advanced degree at an accredited U.S. university between August 1, 2020, and July 31, 2022, is eligible to apply for the Coastal Management and Digital Coast Fellowships. Students from a broad range of programs are encouraged to apply. For more information on these programs, visit the [NOAA OCM Fellowship Information page](#) or email [ocm.fellowships@noaa.gov](mailto:ocm.fellowships@noaa.gov).
- [NOAA's Davidson Research Fellowship](#): The [call for applications](#) for the 2022-2024 Davidson Research Fellow Cohort is open, with **applications due on December 10, 2021**. A fellow will be placed at each of the 29 Reserves across the country. The fellow does not have to live in the vicinity of their selected Reserve. Sign up for email updates and stay connected with the program by emailing [OCM.DavidsonFellowship@noaa.gov](mailto:OCM.DavidsonFellowship@noaa.gov).

**NOAA Training Opportunities:**

- [Climate Adaptation Planning Essentials](#), Live sessions November 30 and December 2 from 1 to 3:30 p.m. (Eastern) [REGISTER HERE](#)
- [Economic Guidance for Coastal Management Professionals](#) January 12, 2022, 2 to 3:30 p.m. (Eastern) [REGISTER HERE](#)

**Funding News**

- [NCCOS ESLR FY21 awards](#) (two in New England)
- [National Coastal Resilience Fund](#) awards will be announced after the NFWF board meeting occurs in November.

## **Secretary Haaland Outlines Ambitious Offshore Wind Leasing Strategy**

*BOEM to potentially hold up to seven new offshore lease sales by 2025*

10/13/2021

Date: Wednesday, October 13, 2021

Contact: [Interior\\_Press@ios.doi.gov](mailto:Interior_Press@ios.doi.gov)

**WASHINGTON** — Secretary of the Interior Deb Haaland today outlined the path forward for future offshore wind leasing to meet the Biden-Harris administration’s goal to deploy 30 gigawatts (GW) of offshore wind energy by 2030.

During a speech at the American Clean Power’s Offshore WINDPOWER Conference & Exhibition in Boston, Mass., the Secretary announced plans for the Bureau of Ocean Energy Management (BOEM) to potentially hold up to [seven new offshore lease sales by 2025](#) in the Gulf of Maine, New York Bight, Central Atlantic, and Gulf of Mexico, as well as offshore the Carolinas, California, and Oregon.

“The Interior Department is laying out an ambitious roadmap as we advance the Administration’s plans to confront climate change, create good-paying jobs, and accelerate the nation’s transition to a cleaner energy future,” said Secretary Haaland. “This timetable provides two crucial ingredients for success: increased certainty and transparency. Together, we will meet our clean energy goals while addressing the needs of other ocean users and potentially impacted communities. We have big goals to achieve a clean energy economy and Interior is meeting the moment.”

As directed by President Biden’s Executive Order 14008, [Tackling the Climate Crisis at Home and Abroad](#), the Interior Department has partnered with other federal agencies to increase renewable energy production on public lands and waters —including a [commitment to deploy 30 gigawatts](#) of offshore wind by 2030 and a target goal of permitting at least 25 gigawatts of onshore renewable energy by 2025.

BOEM is working on refining its process for identifying additional Wind Energy Areas (areas that may be suitable for offshore wind energy leasing). More specifically, BOEM is developing clear goals, objectives, and guidelines that can be shared with government agencies, Tribes, industry, ocean users, and others prior to identifying such areas. In addition, BOEM will use the best available science as well as knowledge from ocean users and other stakeholders to minimize conflict with existing uses and marine life.

“We are working to facilitate a pipeline of projects that will establish confidence for the offshore wind industry,” said BOEM Director Amanda Lefton. “At the same time, we want to reduce potential conflicts as much as we can while meeting the Administration’s goal to deploy 30 GW of offshore wind by 2030. This means we will engage early and often with all stakeholders prior to identifying any new Wind Energy Areas.”

In addition to identifying new offshore wind lease sales, BOEM is considering innovative lease stipulations consistent with the goals and objectives of the Outer Continental Shelf Lands Act, such as lessee reporting requirements on efforts to minimize conflicts with other ocean users; mechanisms for project labor agreements; and investments in the U.S. domestic supply chain. Such stipulations were included in the New York Bight Proposed Sale Notice [announced](#) in June of this year.

The Biden-Harris administration has made significant progress to spur responsible offshore wind development, which is driving the establishment of a robust domestic supply chain and the creation of resilient clean energy that will combat climate change and create good-paying jobs. BOEM completed its review of a Construction and Operations Plan (COP) for the Vineyard Wind project earlier this year, and is currently reviewing nine additional COPs with plans to complete the review of at least another six by 2025, for a total of at least 16 COP reviews representing more than 19 GW of clean energy.

###

**DRAFT November 2021-2023 Work Plan**

**GOAL**

Advance diversity, equity, inclusion and justice in the context of the Northeast Regional Ocean Council’s efforts to promote regional solutions for sustainable ocean management in New England

**STRATEGIES AND ACTIVITIES**

NROC has identified the following strategies to advance DEIJ:

1. Integrate DEIJ into NROC organizational structure
2. Promote DEIJ among NROC partners
3. Advance DEIJ through NROC projects and activities

**Strategy DEIJ-1: Integrate DEIJ into NROC organizational structure**

**Activities:**

- Convene ad-hoc group including at least one rep from each committee to advance DEIJ
- Develop NROC ‘statement’ on DEIJ
  - Define DEIJ terms and what they mean for NROC
- Review NROC structure and operating procedures to identify and pursue opportunities to advance DEIJ
  - Consider voices at the table – broaden partnerships if needed

**Strategy DEIJ-2: Promote DEIJ among NROC Partners**

**Activities:**

- Convene opportunities for dialogue about DEIJ topics among NROC members, partners and others
- Provide guidance to NROC members and partners for advancing DEIJ
  - Identify and share strategies, resources, best practices and tools for advancing DEIJ among NROC partners. Examples include:
    - Tools such as the EPA EJ screening tool
    - Case studies
    - Best practices for communication, outreach and engagement

**Strategy DEIJ-3: Advance DEIJ through NROC projects and activities**

**Activities:**

- Integrate opportunities to advance DEIJ into the work of NROC’s three committees – Coastal Hazards Resilience Committee, Ocean Planning Committee, Ocean and Coastal Ecosystem Health Committee
  - Expand committee membership if needed
  - Review NROC committee projects and activities to identify opportunities to advance DEIJ
    - Implement low or no / cost strategies

- Seek new partnerships or additional funding if needed to advance more complex strategies
  - Seek partnerships that promote inclusion and diversity
  - Align outreach and engagement strategies with DEIJ best practices
- If / where appropriate identify new opportunities for NROC to partner on efforts to advance DEIJ in the context of sustainable ocean management practices

## DRAFT NROC Workplan: Advance regional resilience to coastal hazards

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November 2021-October 2023

### GOAL

Build hazards resilience to impacts of coastal erosion, flooding, storms, and climate change through region-wide dissemination of data, tools, and case studies, as well as fostering collaborative actions.

### STRATEGIES AND ACTIVITIES

NROC has identified the following strategies to advance coastal hazards resilience:

1. Promote regional dialogue on broad-scale adaptation strategies for responding to the effects of sea-level rise.
2. Facilitate data acquisition and user-friendly tools to support planning for and responses to coastal hazards.
3. Stakeholder engagement and communication

#### **Strategy CHR-1: Promote regional dialogue on broad-scale adaptation strategies for responding to the effects of sea-level rise.**

*Activity 1.1: Organize regional roundtables focused on topics of regional interest to enable peer-to-peer sharing including regional landscape, experiences and lessons learned, research needs, and policy opportunities.*

#### With current resources:

- Roundtable on managed retreat, including sharing landscape of current practice and approaches to managed retreat across the region, learning about the role of each of our NROC organizations in managed retreat, and exploring opportunities for integrating equity considerations.
- Roundtable on updated SLR projections and planning guidance, including how projections are being communicated and integrated into planning and policies. Opportunity to consider regional approaches to communications, planning and policies.

#### With additional resources:

- Build on managed retreat roundtable - a) Workshop with coastal managers on managed retreat to learn from outside the NE region; b) develop model managed retreat policies such as voluntary buyout programs, incentives, funding approaches; c) evaluate legal challenges, public trust rights, and public access as the intertidal gets narrowed by inundation and erosion; d) Host a climate migration learning session ([example](#)) and training on how to communicate about climate migration.
- Provide training, facilitation support and/or resources to coastal community planning organizations working on retreat and migration, including building conversations and connections with receiving communities, understanding types of data needed for long term planning, envisioning possible uses of land acquired through retreat and buyout, and equitable migration discussions.

**Strategy CHR-2: Facilitate data acquisition and user-friendly tools to support planning for and responses to coastal hazards.**

*Activity 2.1: Support regional efforts to advance nature-based infrastructure and living shoreline management approaches.*

With current resources:

- The Committee will hold an annual living shorelines day long working session to continue regional sharing of lessons learned on techniques, monitoring, permitting, policies, training, and stakeholder communication. The Committee will track needs, success stories, and opportunities for continued advancement of living shorelines in New England. This will also serve as an opportunity to share results of the TNC led monitoring protocols guidance and StoryMap, as well as develop additional ideas for future living shorelines projects in New England.
- Host a facilitated discussion on typical habitat conversion scenarios in New England living shorelines projects, including evaluating how to incorporate project climate change impacts in the habitat conversion scenarios. The scenarios will primarily focus on conversion of mudflat or degraded beach to fringing marsh and how to evaluate the ecological benefits of habitat in current state, the converted state, and with climate impacts. The goal of this discussion is to highlight how to better describe and/or quantify benefits of the living shorelines projects that convert habitat.
- Continued regional coordination for opportunities to clarify and refine permitting processes.
- Maintain a list of research questions and needs related to living shorelines and nature-based infrastructure and share with regional partners. A shared document will be updated annually to maintain list of current research needs. Example needs include:
  - More specific research around scour and rock sills at various scales on the nearshore environment;
  - Impacts of traditional structures compared to impacts of living shorelines and nature based solutions on habitat in expected future conditions; and
  - Understanding benefits and impacts of living shorelines and nature based solutions on EJ communities in New England.

With additional resources:

- Follow through on recommendations for advancing living shorelines in New England, including from roundtable and habitat conversion discussions.
- Host a community of practice on habitat conversion based on results of previous discussions. Focus areas may include ecological functions and values, understanding compensation, information needs for alternatives analyses, and more as identified by partners.

*Activity 2.2: Organize learning sessions on tools and data that support planning for coastal hazards and sea level rise impacts.*

With current resources:

- The Committee will identify tools and data that support partner interests and organize webinars, sharing opportunities at Committee and NROC meetings, or larger workshops and symposia. Potential focus areas include coastal resilience applications for social vulnerability, climate equity, and environmental justice tools; and Benefit Cost Analysis tools and training to support community proposal development for federal funding programs such as BRIC, NCRF, etc.

- The Committee will track coastal hazards data needs to support mapping, planning, and tool development in the region. A shared document will be updated annually to maintain list of current needs.

*Activity 2.3: Leverage NERACOOS data, products, and services for coastal inundation observations and forecasting.*

With current resources:

- Coordinate with NERACOOS and co-lead one or more roundtable discussions on topics such as storm surge, inundation and erosion forecasting, and modeling needs to inform future research and investments. Bring together state coastal management programs, NOAA, NERACOOS, modeling research groups. Kickoff with sharing end user needs and research questions, discuss gaps in current capabilities, and identify opportunities to build out capabilities in New England. Evaluate changes in needs and requirements from previous conversations in 2015.
- Coordinate with NE Sea Grant Consortium on regional priorities, funding opportunities, and coastal resilience related research needs. Invite chair of NESGC to participate in Committee meetings. Share current research needs with NESGC to inform funding opportunities.

### **Strategy CHR-3: Stakeholder engagement and communication**

*Activity 3.1: Broaden climate equity perspectives and build inclusivity through expanded stakeholder outreach and engagement with environmental justice communities and organizations.*

With current resources:

- The Committee will collectively work to build diverse perspectives by identifying communities, organizations, and partners that should be included in discussions, regular committee communications, meetings, and planned activities.
- The Committee will participate in efforts to better define and understand equity in NROC context, map the NROC landscape of federal, state, regional and local climate equity programs and partnerships.

With additional resources:

- Organize a speaker series on coastal frontline communities and develop a strategy for engaging in discussions on coastal hazards resilience and nature-based solutions with these communities. The goal of the speaker series is to learn about the issues facing coastal frontline communities in New England, data and tools available to evaluate social vulnerability and environmental justice issues in the region, and best practices for engaging with frontline communities. As a result of this speaker series, the Committee will be able to identify the NROC CHR role in building coastal hazards resilience in frontline communities.

*Activity 3.2: Build and engage Committee membership through expanded and consistent communication, quarterly co-chair meetings, and bi-annual membership meetings.*

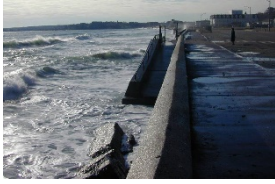
With current resources:

- Co-chairs will maintain contact information for current committee members,
- Regularly share updates and results for NROC supported projects in meetings and NROC events.
  - Share updates and results of the TNC led Living Shorelines project at Committee meetings and develop plan with members to share with their networks. Track the outreach completed by committee members.



- Report out roundtables at Committee meetings and develop plan with members follow up on key action items and potential funding proposals. Track the action items and next steps from each roundtable.

**Ocean and Coastal Ecosystem Health Committee  
November 2021-2023 Work Plan**



The Ocean and Coastal Ecosystem Health (OCEH) Committee is one of three Northeast Regional Ocean Council (NROC) standing committees. This committee was established to help identify and coordinate regional activities to preserve and restore ecosystem health in New England. As recommended in U.S. federal statutes and resolutions adopted by the New England Governors and Eastern Canadian Premiers, ecosystem health and the ability to sustain those services

derived from healthy coastal ecosystems must rely on an ecosystem-based management (EBM) approach. In an EBM context, NROC and the OCEH Committee believe that we have the best prospects for integrating management efforts that crosscut most if not all of the most pressing issues related to ocean and coastal ecosystem health. Further, an EBM framework automatically incorporates other national priority objectives for supporting data and science, spatial characterizations, and program integration that will foster better decisions and management that can help achieve the overarching goal of healthy and resilient coastal and ocean ecosystems.

The NROC OCEH Committee combined with the Northeast Regional Association of Coastal and Ocean Observing Systems (NERACCOOS) Ecosystem Health Committee to develop an integrated, regional sentinel monitoring plan to document the effects of climate change and other stressors on northeast ocean and coastal ecosystems, and formation of a regional network to advance scientific understanding of ocean acidification and its impacts on marine-dependent industries. This coordination is essential to implement a regional monitoring network that will support an effective EBM approach and the indicators that are derived from monitoring data that will guide and chart their progress.

Goal: Enhance region-wide coordination and collaborative actions on shared ocean and coastal ecosystem health priorities including those affecting water quality, habitats, and living resources and their derived social and economic benefits.

Need for Action: The Northeastern U.S. coastal ocean is a rich and diverse place, from the near-shore sounds of southern New England to the beaches of Cape Cod, and the rocky shores and complex circulatory patterns of the Gulf of Maine.

These ecosystems have abundant resources and have supported coastal communities for generations. But these valuable ecosystems are vulnerable. The impacts of increasing human uses, including many new industrial uses, and the effects of fragmented, single-sector management are showing in degraded water quality, depleted fish stocks, and damaged habitat that have diminished our lifestyle and economy alike. Since 2010, the temperature in the Gulf of Maine has been above average 92% of the time. It's been at heatwave levels for 55% of the time. Predictions from climate models project indicate that this warming rate will continue to exceed the global average in the future. The effects of warming and other pressures are widespread, often linked to common causes, as evidenced by documented "dead zones" in Long Island Sound, shifting and unbalanced natural communities and diminished fisheries in the Gulf of Maine. The New England states also have identified causal links to human activity such as development on land and use of fossil fuels with the health of our coastal waters and estuaries.

Many people, agencies, and organizations are already working to protect and restore coastal and ocean ecosystem health in the Northeastern U.S. NROC's role is to support the priorities of the New England

Governors, guided by the themes of their adopted resolutions as well as those provided in EO13840, “Ocean Policy to Advance the Economic Security, and Environmental Interests of the United States.” Generally, these themes are 1) adopting EBM; 2) improving resiliency; 3) obtaining, using and sharing the best science and data; 4) promoting efficiency and collaboration; and 5) strengthening our regional effort. These themes are well-suited to NROC’s and to the OCEH Committee’s construct and strategy to enhance communication and collaboration, advocate for collectively-determined priority regional actions, and help articulate a common vision for management and restoration. To implement this strategy, NROC has identified three areas of focus within coastal and ocean ecosystem health:

- Link observations to management decision-making,
- Enhance data collection, integration and dissemination, and
- Improve governance, coordination and communication.

Strategies: The committee has identified three broad strategies for working toward its goal of protecting and restoring coastal and ocean ecosystems in the Northeast:

1. Support research and monitoring that enhances our understanding of ecosystem structure and function as related to human impacts, improves utility of social, economic and environmental indicators, and leads to effective EBM implementation
2. Strengthen regional coordination to promote efficiency and collaboration by building partnerships, sharing resources, and reducing redundancy of efforts and ensuring full public and professional participation in the decision-making process
3. Facilitate the accessibility of data and decision support tools needed to support restoration, conservation, and resiliency of coastal habitats, through coordination, technical and financial assistance.

Activities listed below are underway or in the development phase and will begin the process of implementing the strategies. While far from complete with respect to the goal of implementing an EBM framework throughout the region, many of these actions provide a start, or even a cornerstone towards achieving that goal.

Strategies and activities: Each of the strategies and activities have specific associated steps that the committee members and their partners will implement over the next two years.

### **Strategy OCEH-1: Support Research and Monitoring**

#### **Activities:**

#### **OCEH – 1.1 Implement “Integrated Sentinel Monitoring Plan for Ecosystem Change in Northeastern Ocean and Coastal Waters”**

*Lead organizations: EPA, GMRI, NERACOOS*

NROC will work closely with NERACOOS and other partner organizations to implement the science and implementation plan for an integrated regional climate change sentinel monitoring network for the Northeast region (from the Canadian Maritimes to Long Island Sound). The ISMN is envisioned as a regional entity with infrastructure that will sustain an adaptive sentinel monitoring network, with five major functions: 1) provide coordination support for existing observing activities; 2) further develop, integrate, and coordinate regional capacity for data management and distribution; 3) enhance and expand current monitoring efforts by supporting

needed supplemental measurements; 4) create and sustain a data management, analysis and interpretation system and communication strategy to inform researchers, managers and the public; and 5) support an integrated, ecosystem-based management framework for adaptive responses to change.

**1.1.1 Update and disseminate the plan as guidance on the region's need for sentinel indicators and enhancements that can be identified in proposals for funding**

NROC will host the plan on their website under "current activities" for the OCEH workgroup

**1.1.2 Write letters of support to proposals that directly address sentinel monitoring needs**

NROC will write letters of support for proposals which will fill sentinel monitoring data collection gaps in present monitoring activities

**1.1.3 Provide guidance on collection protocols and other technical issues to promote standardization and accuracy of data and hence it's utility for broader integrated and comparative analyses**

NROC will provide a forum for discussion to agree upon data collection protocols – this could include workshops, surveys and/or formation of an expert panel. Agreed-upon standardization will be written up in the form of a guidance document for dissemination to NROC partners and the greater public.

**1.1.4 Develop data management capacity and guidelines to ensure that data produced by these observing activities are conserved and entrained in integrated analysis**

NROC will work closely with NERACOOS to ensure all relevant data is captured in a centralized metadata-database ([Monitoring Inventory – Integrated Sentinel Monitoring Network](#)).

**1.1.5 Identify and pursue funding opportunities to implement the plan**

NROC, NERACOOS, and partner organizations will coordinate to identify potential funding sources to fill gaps identified in the plan, increase spatial or temporal coverage of key sentinel sites, and increase the observing, data management, and modeling capacity of the northeast region.

**1.1.6. Support implementation of the ISMN project monitoring zooplankton abundance.**

NROC, NERACOOS, and partner organizations will, estimate nutritional value for endangered whales, and predicting whale foraging behavior, and advise on extensions of the project to include forage fish and other ecosystem components.

**OCEH – 1.2 Support Northeast Coastal Acidification Network (NECAN)**

*Lead Organizations: NERACOOS, EPA*

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

**1.2.1 Serve on NECAN Steering Committee to help ensure NROC interests are well represented**

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

**1.2.2 Facilitate funding to support monitoring and research on ocean and coastal acidification**

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

**1.2.3 Facilitate funding to support outreach and education to external stakeholders from ocean-dependent industries, such as the shellfish aquaculture and fishing industries**

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

**1.2.4. Contribute to Northeast regional component of the national CAN vulnerability assessment**

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

**Strategy OCEH-2: Strengthen Regional Coordination**

**Activities:**

**OCEH-2.1 Hold an OCEH committee meeting**

*Lead Organizations: EPA, NH Coastal Program*

**2.1.1 Update OCEH committee roster, define subcommittee rosters**

**2.1.2 Exchange information on partner programs and activities relevant to OCEH committee goals**

- Activities related to marsh resilience; further data and information needs for the region

**2.1.3. Offer a NOAA Coastal Management training opportunity on applying ecosystem service framework to current projects**

**OCEH-2.2 Promote regional seagrass and marsh resiliency through understanding existing seagrass and salt marsh condition, coordination of mapping and migration modeling, implementation of seagrass and salt marsh management techniques, and evaluation of project effectiveness and their use in New England Coastal Zone Policy**

*Lead Organizations: EPA, NOAA, NH Coastal Program*

**2.2.1 Continued support of marsh migration projects in the region**

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

**2.2.1: Establish a regionally consistent methodology for salt marsh mapping, monitoring and data management to support salt marsh conservation and restoration in New England.**

Through a series of workshops, convene regional partners to share current practices and consider unified salt marsh mapping and monitoring methodologies and data management practices. Advance consensus-based mapping and monitoring methods and database through publication.

**2.2.3 Explore next steps and evaluate effectiveness of projects**

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

agencies and partner institutions.

**2.2.4 Integrate marsh resiliency efforts with regional road crossing and culvert assessments and aquatic connectivity projects.**

Promote tidal crossing (ex. culverts) activities that incorporate policy, assessment, design standards and construction guidelines that make systems more resilient and allow for aquatic connectivity and assist in marsh migration. In addition, NROC will promote and coordinate as appropriate projects that increase connectivity through removal of obstructions such as dams and seawalls.

**2.2.5 Continued Support of Blue Carbon efforts in the Region**

Building off the NROC funded Blue Carbon project, which added updated eelgrass and salt marsh habitat and carbon stock data to the Northeast Ocean Data Portal, NROC will continue to support the New England Blue Carbon Workgroup and project partners, including highlighting project methodology and results, possible implications, and future needs.

**OCEH-2.3: Strengthen habitat classification and ocean mapping efforts in the Northeast**

**Lead Organizations: NOAA, Massachusetts Coastal Zone Management**

Coordinate with NROC Ocean Planning Committee, NROC Ocean Planning Staff/Contractors and Habitat Classification and Ocean Mapping (HCOM) subcommittee members to strengthen collaboration between and compatibility of habitat classification methods and efforts in the New England Region. The work of the Habitat Classification and Ocean Mapping Working Group will be continued through shared knowledge and regional mapping coordination to effectively meet mapping needs in New England, particularly northeast submerged lands and outer continental shelf lands.

**2.3.1 Regional mapping planning coordination.**

- a) Through the use of SeaSketch and other partnerships, NROC partner members will continue to share their mapping.
- b) plans and needs in an effort to find opportunities to leverage resources among NROC partners working in New England.
- c) HCOM members will receive an update on mapping plans and recent activities.
- d) Describe regional mapping priority gaps to share and help direct resources, this may be done through a workshop.

**2.3.2 Develop a habitat classification community of practice.**

- a) Foster ongoing community activities for sharing techniques around habitat classification mapping using CMECS. Will use peer to peer learning, for example listserv for sharing questions and techniques, and workshops to expand knowledge and collaboration, in order to build on regional best practices, to foster enhanced understanding and management of New England waters.
- b) Encourage the requirement of offshore wind companies to map seafloor resources using CMECS and to develop platforms for sharing their data more broadly. Support companies through a workshop to better understand CMECS application in the Gulf of Maine.

- c) Share revised CMECS classification approach used in the Gulf of Maine with regional and national partners. Share methods used in the HCOM Gulf of Maine Geofom Project (especially with regard to future updates using higher resolution data), through presentations and workshops.
- d) Improve ability to utilize data in different habitat classification schemes through creating crosswalks to CMECS.
- e) Connect with efforts going on in other regions (e.g., Great Lakes Aquatic Framework) for cross regional mapping learning opportunities.

**2.3.3 Identification of new resources and collaboration opportunities.**

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

**2.3.4. Support best practices and evolution of data collection.**

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

**2.3.5. Foster development of innovative products that advance regional ocean science and planning.**

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

**OCEH Steering Committee Members:**

Steve Couture, NH Coastal Program (State Co-chair)  
 Chris Williams, NH Coastal Program (Alternate State Co-chair)  
 Regina Lyons, US EPA Region 1 (Federal Co-chair)  
 Becca Newhall, NOAA (HCOM and Alternate OCEH Federal Co-chair)  
 Dan Sampson, MA Coastal Zone Management (HCOM state co-chair)  
 Todd Callaghan, MA Coastal Zone Management (HCOM state co-chair)  
 Ivy Mlsna, US EPA Region 1  
 Jeffrey Runge, Gulf of Maine Research Institute (NERACOOS OCEH Co-Chair)

**Northeast Regional Ocean Council  
Ocean Planning Committee  
DRAFT 2022 – 2023 Work Plan**

The Ocean Planning Committee (OPC) is one of NROC’s three standing committees. The goal of the OPC is to enhance decision making, improve ocean and coastal ecosystem health, and reduce conflicts. The OPC advances this goal by providing support for and coordinating across ocean planning, management, and regulatory activities.

The OPC originally convened when individual New England states were developing ocean plans in response to proposals for new offshore activities, including offshore liquified natural gas (LNG) terminals and renewable energy installations. In 2009, NROC and partners established the [Northeast Ocean Data Portal](#) (Portal) to provide data and information to support planning, permitting, and siting activities. From 2010 through 2017, the OPC supported the establishment and operations of the Northeast Regional Planning Body, which developed and began implementing the 2016 Northeast Ocean Plan. In 2018, the OPC was re-established to include states, federal agencies, tribes, and the New England Fishery Management Council with the intent of continuing support for offshore planning, management, and regulatory actions by providing a regional forum for coordination, providing data and information via the Portal, and developing and communicating best practices for decision-making. In 2021, NROC, in partnership with the Mid-Atlantic Regional Council on the Ocean (MARCO), was selected to be the host of the Regional Wildlife Science Entity (RWSE) – a new partnership among the states, federal agencies, environmental groups, and the offshore wind industry to coordinate science and monitoring related to wildlife and offshore wind on the Atlantic coast.

Planning for new and existing activities and the coordination of science and monitoring is occurring at many scales in New England, including regionally. This includes offshore wind leasing and project development, energy transmission, telecommunications, aquaculture, waterways management and navigation, wildlife and fisheries research, fisheries management, and dredged material disposal. The OPC has also identified habitat conservation and sand and sediment management as emerging ocean issues. Management, regulation, and planning for these activities occur in separate venues and processes that are dictated by specific regulatory mandates. The OPC remains the only venue in the region where informal coordination can occur across such a wide range of regulatory and management topics. This work plan describes how the OPC intends to support planning for these activities through 2023.

NROC and the OPC have also acknowledged broader, cross-cutting issues that affect ocean management, particularly climate change and diversity, equity, inclusion, and justice. Changing climate and environmental conditions will be important context for each of the strategies in this work plan and may result in specific activities, such as the development of data products characterizing change or convening of workshops or discussions that have specific climate considerations. The OPC will refer to NROC’s draft work plan to Advance Diversity Equity, Inclusion and Justice to guide the integration of these issues into the strategies and activities of this work plan.

**Goal:** Provide a forum, data and information, best practices, and opportunities to coordinate offshore planning, regulatory, and siting activities to improve ocean and coastal ecosystem health, enhance decision making, and ensure compatibility among human activities.

**Need for Action:** There is an increasing need for data and information, multi-jurisdictional coordination, and effective outreach and engagement as new activities continue to be proposed in state and federal waters.



Strategies: The OPC has identified five strategies for working toward its goal to support and coordinate ocean planning:

1. Provide a regional forum for a broad range of interests to engage in and coordinate across offshore planning and management issues
2. Identify and implement best practices for environmental review, permitting, and management of ocean uses
3. Engage stakeholders in the development of peer-reviewed geospatial data products characterizing human activities and ecological and cultural resources and their change over time
4. With partners, host and foster the Regional Wildlife Science Entity
5. Determine near and long-term capacity and funding needs to support OPC activities

Strategies and activities: Each of the strategies below are in the process of being implemented. Strategies are supported by individual activities that committee members and partners will implement.

***Strategy OPC-1: Provide a regional forum for a broad range of interests to engage in and coordinate across offshore planning and management issues***

OPC-1.1 Host OPC meetings

The OPC will hold regular meetings to identify priorities, ensure communication and coordination across agencies and jurisdictions, and to provide opportunities for public input.

OPC-1.2 Establish work groups or subcommittees to support regional ocean management and planning priorities

The OPC will establish work groups and subcommittees as needed to support ocean management and planning priorities that are identified through OPC meetings. Work groups and subcommittees will be composed of individuals with experience in the topic. Currently, there are work groups and subcommittees developing Best Practices (see Strategy 2), supporting data development for the Portal (see Strategy 3), and developing a research and monitoring agenda to better understand wildlife interactions with offshore wind development (see Strategy 4). In addition, there is an aquaculture work group that is sharing information and coordinating best practices for reviewing and permitting aquaculture in federal waters and an offshore transmission work group that has been coordinating information needs and linking the coastal permitting and planning community with energy and transmission professionals, including grid operators, to ensure mutual understanding of onshore grid and transmission issues with offshore permitting and planning issues.

OPC-1.3 Enable and initiate discussions, forums, and workshops for emerging or important regional ocean management and planning issues

The OPC will provide opportunities for interjurisdictional coordination, public awareness, and input on emerging or important regional ocean management issues. In addition to work groups and subcommittees that may include OPC members and public participants, the OPC will host workshops, webinars, and other forums to enable coordination and information sharing for emerging issues.

***Strategy OPC-2: Identify and implement best practices for environmental review, permitting, and management of ocean uses***

OPC-2.1 Finalize, Communicate, and Obtain Feedback on Best Practices

The OPC has established a Best Practices Work Group that drafted a set of *Best Practices for Ocean Permitting and Management Processes*. Best practices in this context are specific activities that can be implemented in ocean permitting and management processes that enhance one or more of the following four themes **(1) Stakeholder engagement, (2) Agency and interjurisdictional coordination, (3) the Use of**

**data and information, and (4) Regulatory pre-application practices.** The OPC will obtain public input and finalize the Best Practices. Once final, the OPC will use NROC's regional forum to communicate to regulators, planners, and the public. In addition, the Best Practices will be shared with other regions and the federal Ocean Policy Committee, which is co-chaired by the White House Council on Environmental Quality and the Office of Science and Technology Policy.

#### OPC-2.2 Develop Short Summaries of the Best Practices Being Used for Different Management Activities and Regulatory Processes

The OPC will develop and maintain short summaries of the Best Practices being implemented for different management activities, regulatory processes, and ocean issues. The intent of these summaries is to describe how the best practices have and can be implemented during specific regulatory or management processes. The first four topics will be offshore wind, aquaculture, cables and pipelines, and marine transportation and navigation. The OPC will consider developing summaries for additional ocean management and regulatory issues once the first four are completed. Summaries will be updated on a regular basis, shared publicly, and used to inform agency staff.

#### ***Strategy OPC-3: Engage stakeholders in the development of peer-reviewed geospatial data products characterizing human activities and ecological and cultural resources and their change over time***

##### OPC-3.1 Develop, implement, and update the annual [Northeast Ocean Data Portal Work Plan](#)

The OPC will develop and implement an annual work plan detailing the activities necessary for engaging topical experts and the public in the development, review, and dissemination of maps and data products for regional ocean management priorities. The work plan will synthesize budgets, funding requirements, annual data priorities, outreach, and communications by describing activities for the following four overarching tasks.

1. Maintain and develop maps and data products for regional ocean management data priorities
2. Maintain and enhance applications and tools for visualizing and utilizing regional data products
3. Maintain website and IT infrastructure
4. Conduct outreach to identify data priorities, inform data product development, and enhance user understanding of the Portal

##### OPC-3.2 Establish work groups to guide the development of data products for specific topics

The OPC will establish and convene regional work groups to support and inform the development of specific data themes. The OPC has or is currently convening work groups for the following data themes: commercial fishing, energy and infrastructure, marine transportation, recreation, culture, marine mammals and sea turtles, fish, birds, seafloor habitat, eelgrass, and coastal vegetation and blue carbon. Existing and additional work groups will convene and meet on an as-needed basis to inform the development of new or updated data products within that theme.

##### OPC-3.3 Coordinate data work groups and data development with related NROC and partner activities

NROC recognizes that the Portal may be used by other NROC committees to disseminate maps and data or that there are data topics that are relevant to multiple committees. These provide opportunities for efficiency and coordination across NROC. Specifically, the data being developed by the marine life and habitat work groups are likely to be relevant to the Integrated Sentinel Monitoring Network being advanced by the Ocean and Coastal Ecosystem Health Committee (OCEHC). Similarly, the development of coastal vegetation, eelgrass, and blue carbon maps is also relevant to the OCEHC. In addition, NROC will coordinate map and data development with partners who conduct similar activities, such as the New England Fishery Management Council (NEFMC) and the Northeast Regional Association of Coastal Ocean Observing Systems (NERACOOS).

### ***Strategy OPC-4: Host and foster the Regional Wildlife Science Entity (RWSE)***

The RWSE is a multi-sector group that supports research and monitoring on wildlife and offshore wind on the US Atlantic coast. NROC, in collaboration with the Mid-Atlantic Regional Council on the Ocean and Coastal States Stewardship Foundation, provide staff (Director, Coordinator, Senior Advisor) and administrative functions (contracting and legal support). The four sectors that comprise RWSE (federal agencies, state agencies, eNGOs, offshore wind industry) overlap with regional ocean planning participants in the Northeast and Mid-Atlantic. Therefore, RWSE benefits from involvement of participants and staff in synergistic ocean planning activities described in other Strategies of this work plan.

The RWSE Work Plan outlines the broad bins of responsibilities shared between NROC, MARCO, and CSSF in launching and implementing the RWSE. There are six broad ongoing tasks. More specific actions that will be required within each of these tasks are projected each year. The following activities are inclusive of those tasks – see the RWSE work plan for additional details.

#### **OPC 4.1 Support RWSE Administrative, Fundraising and Governance Functions**

The OPC will provide support to RWSE’s administrative, fundraising and governance functions. This includes providing staff and contract support, developing and providing oversight for contracts, ensuring coordination with related NROC and partner activities, supporting fundraising for RWSE operations and research, and establishing and maintaining the [RWSE Governance Structure](#). RWSE governance includes three components – Steering Committee, Sector Caucuses, and taxa-based or issue-specific Subcommittees. The activities of the Subcommittees are synergistic with Portal work groups (OPC Strategy 3.2). RWSE Subcommittees are connected to existing NROC/MARCO Marine Life Work Groups such that they are distinct but complementary, with beneficial overlap in membership towards streamlining workflows such that research prioritization and data collection result in shared data products that support decision-making and adaptive management and vice-versa. RWSE Subcommittees and NROC/MARCO Marine Life Work Groups hold joint meetings when it is beneficial to advancing offshore wind monitoring/assessment topics. Staff provide support for regular meetings and the dissemination of information and draft work products for review throughout the RWSE Governance Structure.

#### **OPC 4.2 Support RWSE Research Coordination**

The OPC will provide support for RWSE’s research activities, including the development of research priorities and science/implementation plans for those priorities, cataloging and coordinating existing research projects, obtaining funding commitments for new research, and managing related research projects. Where possible, staff will use regional data portals to disseminate spatial data for planning research activities and displaying monitoring/research results. Work under this task will therefore be highly coordinated with Portal development and maintenance, as well as relevant OPC data work groups.

#### **OPC 4.3 Support RWSE Communications, Outreach and Engagement**

The OPC will support RWSE outreach and engagement as described in the RWSE work plan. This includes leveraging and efficiently using NROC member and staff time to engage RWSE stakeholders while conducting related activities from the OPC work plan. In addition, the RWSE will use the Portal, ocean planning website, and ocean planning email list, and other OPC communication tools to engage the public in RWSE activities.

### ***Strategy OPC-5: Determine near and long-term capacity and funding needs to support OPC activities***

#### **OPC 5.1 Establish OPC membership and leadership**

NROC will periodically confirm OPC membership and determine leadership from its members. States, federal agencies, federally recognized tribes, and the New England Fishery Management Council are welcome to join the OPC as members. The OPC will be led by state, federal and tribal co-chairs. In recent years, OPC leadership has evolved into a small committee with co-chairs. The OPC co-chairs and the leadership committee have oversight responsibilities for contract staff, budgets, contracting, proposals, OPC meetings, and work plan development.

OPC 5.2 Determine capacity and budget requirements and secure funding to support ocean planning activities, including the operations and maintenance of the Northeast Ocean Data Portal

OPC leadership and membership will determine budget and capacity requirements, identify potential funding sources, and secure funding and capacity to achieve work plan outcomes. This could include governmental and non-governmental funding sources, in-kind capacity from OPC members, and other partnerships and opportunities to leverage funding or obtain additional resources.

**Northeast Regional Ocean Council**  
**Summary – April 8, 2021, NROC Virtual Meeting**

**ATTENDEES**

Seth Ackerman, USGS; Margaret Allen, NOAA; Michelle Bachman, NEFMC; Robert Ballou, RI DEM; Rick Bennett, US FWS; David Blatt, CT DEEP-LWRD; Chris Boelke, NOAA Fisheries; Emily Bolger, US EPA; Dani Boudreau, NOAA; Alison Bowden, The Nature Conservancy; Morgan Brunbauer, NYSERDA; Leann Bullin, BOEM; John Bumgarner, USGS; Todd Callaghan, MA CZM; Jamie Carter, NOAA; Julie Conroy, Ramboll; Mel Coté, US EPA; Steve Couture, NH DES; Rachel Croy, US EPA; Steve Dickson, ME Geological Survey; Ted Diers, NH DES; Ian Dombroski, US EPA - SNEP; Lisa Engler, MA CZM (NROC State Co-Chair); Susan Farady, University of New England; Leah Feldman, CRMC RI; Jennifer Felt, Conservation Law Foundation; Marianne Ferguson, NOAA Fisheries; Mark Finkbeiner, NOAA; Kathryn Ford, MA DMF; Darryl Francois, BOEM; Melissa Gates, Surfrider Foundation; Adrienne Harrison, NOAA; Ben Haskell, NOAA; Helen Henderson, Responsible Offshore Science Alliance (ROSA); Lyndie Hice-Dunton, ROSA; Christine Hirt, National Offshore Wind; Tricia Hooper, NOAA; Rafeed Hussain, Ocean Conservancy; Cathy Johnson, National Park Service; Jason Kelly, Moran Shipping; Chris Kinkade, NOAA; Paul Kirshen, UMASS Boston; Julia Knisel, MA CZM; Alison Krepp, NOAA; Mary Krueger, National Park Service; Alix LaFerriere, The Nature Conservancy; Joan LeBlanc, NROC; Kathleen Leyden, ME DMR; Matt Liebman, US EPA; Lucy Lockwood, UMASS Boston; Rebecca Love, NOAA; Jay Lucey, Coalition of Northeastern Governors; Katie Lund, UConn CIRCA; Abigail Lyon, University of NH; Regina Lyons, US EPA; Margot Mansfield, MA CZM; Daniel Martin, NOAA OCM; Sally McGee, The Nature Conservancy; Christopher McGuire, The Nature Conservancy; Ellen Mecray, NOAA; Meredith Mendelson, ME DMR; Ivy Mlsna, US EPA; Peter Murdoch, USGS; Nick Napoli, NROC; Becca Newhall, NOAA OCM; Betsy Nicholson, NOAA OCM (NROC Federal Co-Chair); Lauren Nutter, Udall Foundation; Kevin O'Brien, CT DEEP; Larry Oliver, US ACE; Kate Press, NYSERDA; Story Reed, MA DMF; Edward Reiner, US EPA; Matt Robertson, Vineyard Wind; Jeffrey Runge, University of Maine; Maggie Sager, NOAA; Christopher Schillaci, NOAA; Catherine Schluter, Roger Williams University; Emily Shumchenia, NROC; Tom Shyka, NERACOOS; Christine Sloan, National Offshore Wind Research and Development Consortium; Chris Sparkman, US Coast Guard; Marilyn Stevens, Harborlight Software; Alice Stratton, NOAA Stellwagen Bank National Marine Sanctuary; Ben Sweeney, NH DES / NOAA Fellow; Ariana Telzerow, University of New England; Brian Thompson, CT DEEP; Kalaina Thorne, The Nature Conservancy; Timothy Timmermann, US EPA; Amy Trice, Ocean Conservancy; Michael Triantafyllou, MIT Sea Grant; Jim Turek, NOAA; Prassede Vella, MA CZM; Jeffrey Waldner, BOEM; Maya Whalen-Kipp, US DOE; Chris Williams, NH Coastal Program; Jeff Willis, RI CRMC; Julia Wyman, Harborlight Software

**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**

**NROC Funding Status**

Betsy Nicholson provided an overview of NROC's funding status noting that NROC does not have an appropriation or steady funding stream but instead relies on a variety of sources to support NROC

coordination and Committee activities. NOAA grants are currently funding activities of the Coastal Hazards Resilience Committee and the Ocean and Coastal Ecosystem Health Committee. Ocean Planning Committee activities currently receive funding from EPA, BOEM, Moore Foundation, NOAA, and the MA Clean Energy Center. Detailed funding amounts, project descriptions and funding periods are included in the meeting packet at: <https://www.northeastoceancouncil.org/library/>. Betsy noted that NROC partners should be looking for new funding opportunities as all current sources of funding expire in 2023.

### **NROC Letter to Biden Administration / NOAA RFI**

Lisa Engler reported that NROC recently submitted a letter to the Biden Administration highlighting Northeast regional priorities, NROC committee activities, and opportunities for NROC to advance Biden Administration priorities related to climate and ocean management. The following opportunities for NROC to support the Biden Administration and interagency Ocean Policy Committee were emphasized:

- Pilot Administration priorities that are appropriate for regional scale implementation, serve as an effective and inclusive messenger to reach regional stakeholders, to design regional scale projects, and to test climate resilience practices
- Identify regional priorities for mapping, characterization, and other data collection
- Increase the reliability and accessibility of federal datasets that are routinely used in ocean management

### **NROC OPPORTUNITIES IN CONTEXT OF BIDEN ADMINISTRATION PRIORITIES**

Betsy Nicholson and Lisa Engler provided an overview of national priorities of interest to NROC as well as priorities for NROC state partners. Following this overview, NROC members and partners discussed opportunities for NROC to implement national priorities in New England, and opportunities for NROC to work across states to leverage common state priorities.

#### **National Priorities**

Betsy Nicholson highlighted the following Biden Administration actions and legislative priorities that are most relevant to NROC.

- Climate Executive Orders
  - 14008 Tackling the Climate Crisis at Home and Abroad  
<https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-and-abroad>
  - 13990 on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis <https://www.federalregister.gov/documents/2021/01/25/2021-01765/protecting-public-health-and-the-environment-and-restoring-science-to-tackle-the-climate-crisis>
- Administration's Offshore Wind Energy Announcement (March 29)  
<https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>
- Racial Equity Executive Order: 13985 Advancing Racial Equity and Support for Underserved Communities through the Federal Government <https://www.whitehouse.gov/briefing->

[room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/](https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/)

- American Jobs Plan <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>
- Presidential Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/26/memorandum-on-tribal-consultation-and-strengthening-nation-to-nation-relationships/>

Betsy noted that NROC is tracking:

- Pingree Working Waterfronts Bill
- Regional Ocean Partnership Bill

### **State Priorities**

Lisa Engler shared the following key priorities for NROC's state partners.

- Maine
  - Maine Climate Action Plan (2020) <https://climatecouncil.maine.gov/>
  - Maine Offshore Wind Initiative (demonstration project, partnership with UK, research array)
- New Hampshire
  - Offshore Wind and Port Development Commission & pending offshore wind legislation
  - Resilience – data development for adaptation, tidal crossings, living shorelines
- Massachusetts
  - Next Generation Roadmap for Massachusetts Climate Policy (2021)
  - Resilience – technical assistance, grant programs, focus on working waterfronts
- Rhode Island
  - 2021 Act on Climate – proposes carbon emission reduction goals
  - Resilient Rhody – statewide climate action strategy
- Connecticut
  - Governor's Council on Climate Change – reduce carbon emissions, adaptation, and resilience
  - Long Island Sound Blue Plan, Resilient Connecticut, Long Island Sound Study

Lisa noted the following regionwide key themes and drivers related to climate:

- Carbon emission reductions targets
- Commitment to balanced development of Offshore Wind energy
- Resilient coasts – communities, infrastructure, and habitats

### **NROC Opportunities**

NROC members and partners identified the following potential opportunities for NROC to pursue in the context of the Biden administration.

*Resilient coasts – communities, infrastructure and habitats*

- Advance tidal crossings throughout the region through activities such as providing guidance for permitting or design.
- Ensure that marsh migration areas are integrated into the 30 x 30 initiative.
- Advance NOAA NCCOS highest priorities for Northeast states.
  - Vulnerability and risk assessments (developing models and tools that integrate biological, hydrologic, physical, socioeconomic, and other factors to evaluate coastal resilience.
  - Climate impacts on ecosystem (conducting research on detecting and assessing change in coastal ecosystems)
- Develop NE regional approach for 309 assessment strategies.
- Explore opportunities for creating regional standards and approaches for conducting vulnerability and risk assessments for coastal assets.
- Identify and advance shovel ready resilience projects that could be funded through the infrastructure bill which includes \$10 billion for climate ready resilience projects. Collaborate with Coastal States Organization which has identified \$5.7 billion in coastal infrastructure needs.
- Pursue opportunities to focus on large scale regional habitat monitoring, protection and restoration efforts.
  - Focus on issues such as sentinel sites, comprehensive climate monitoring, blue carbon, and ecosystem restoration.
  - Collaborate with partners such as NERACOOS, Sea Grant, GOMC.
- Engage with USACE and CRMC to learn about floodproofing and raising structures as part of managed retreat projects in RI.

*Resilient coasts - living shorelines / nature-based solutions*

- Engage in discussions with USFWS regarding monitoring of living shorelines. The service has initiated a standardized monitoring effort associated with Hurricane Sandy projects.
- Connect with USACE as their new projects consider natural and nature-based features.
- Provide guidance and support on permitting to help advance living shoreline and habitat restoration projects in the region (connect with Boston Harbor Now / UMass Living Stone Lab partnership).

*Balanced development of offshore wind energy*

- Support robust data portal to advance wind energy development in a responsible manner.
- Incorporate data and information from the data sharing agreement between ORSTED and NOAA into the data portal.
- Advance development and management of baseline data in potential offshore wind energy lease areas to promote agreement and interpretation during development of mitigation plans.
- Engage with ROSA data sharing working group to collaborate on developing baseline data and data sharing for fisheries and ecological resources. Engage with ROSA effort to identify gaps and needs and conduct an assessment on standardization and data sharing for fisheries resources. Continue collaboration between NROC seafloor mapping work and ROSA efforts.

*Climate and equity*

- Identify opportunities for collaboration to advance climate and equity theme which has been identified as a shared priority throughout the region and at the federal level.



- Explore opportunities to link NOAA equity mapping with NROC efforts to inform focus on environmental justice communities.
- Build on the communities at sea work when considering offshore impacts.
- Look for opportunities to build on insights from Maine Climate Council's report on equity - [https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/MCC\\_EquityAssessmentReport\\_201007.pdf](https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/MCC_EquityAssessmentReport_201007.pdf)
- Engage with Marine Affairs Institute / Rhode Island Sea Grant Legal Program as they are hosting an EJ symposium this fall.

*Continue tracking federal actions and legislation*

- Pingree Working Waterfronts Bill
- Regional Ocean Partnerships Bill
- FY22 Budget
- Additional Executive Orders and Announcements

## **NROC PARTNER UPDATES AND OPPORTUNITIES FOR COLLABORATION**

### **Northeast Sea Grant Consortium (NESGC)**

Michael Triantafyllou (MIT Sea Grant) provided updates on behalf of the Northeast Sea Grant Consortium (NESGC), which focuses on implementing regional projects in Connecticut, Maine, New Hampshire, New York, Rhode Island, and Massachusetts (MIT and Woods Hole Oceanographic Institution). Michael provided an overview of NE Sea Grant's plans to provide funding for *Advancing Research for the Co-existence of Fishing, Coastal Communities and Regional Ocean Renewable Energies*. The program will seek to achieve the following objectives:

- Improving understanding of ocean renewable energy (offshore wind and hydrokinetic wave, current, and tidal energies) planning and interactions with fishing and coastal communities.
- Advancing objective social science and technology research for the co-existence of coastal and marine activities to support community economies and resilience.

Approximately \$1 million will be available to support projects during the funding period February 1, 2022 – January 31, 2024. Budget requests may not exceed \$100,000 annually, for a maximum funding request of \$200,000 for two years. Proposal requesting lower levels of support are welcome and will receive full consideration. Proposals require a 50% non-federal match. Research priorities: 1) Fisheries and fishing community resilience, 2) Coastal community and economic resilience, and 3) Multi-use marine activities. Projects that advance diversity, equity and inclusion are encouraged. Pre-proposals due: May 14, 2021 by 5pm via MITSG's online portal, [eSeaGrant](#). Full proposals due: July 16, 2021 by 5pm via MITSG's online portal, [eSeaGrant](#).

### **NERACOOS**

Tom Shyka provided an overview of NERACOOS activities and projects. NERACOOS submitted their five-year proposal to US IOOS, totaling \$30m (\$6m per year). Proposed activities include sustaining long-term observations and models, expanding data management capabilities and products, and incorporating new observing efforts with a focus on biology. NERACOOS has launched a new visualization tool for real-time ocean data which is now available at [Mariners Dashboard](#). Feedback welcome. All buoys are reporting as expected in the Gulf of Maine, with the exception of buoy N in the Northeast Channel which lost

communications in January. Long Island Sound buoys are planned for re-deployment in late spring. The Great Bay buoy is being replaced with a new buoy, thanks to funding from NHDES, UNH, US IOOS, NOAA OCM and PREP. An expansion to the Cape Cod PORTS system is underway with a new CDIP wave buoy being planned for deployment near the Buzzards Bay tower. [High Frequency Radar \(HFR\) data](#) is now available for all of Massachusetts Bay, with a new station being installed in Cape Ann. The Salisbury Beach HFR is in-progress and will be transmitting data in the coming months, which will expand coverage into southern Maine.

Northeast Coastal Acidification Network (NECAN) has continued hosting their webinar series. The full schedule, webinar recordings and registration are available at: [NECAN Website](#). The NECAN Industry Working Group and Steering Committee are working on promoting the Industry Survey Report and identifying opportunities to address the comments and concerns of the survey respondents. The report and two-pager are available for reading and download on the [NECAN website](#). With funding from RARGOM, NECAN is developing an infographic about the effects of ocean and coastal acidification on commercially important species in the region. NECAN is developing a three-year work plan that will detail goals and objectives along with new project ideas. The plan will be submitted to the NOAA OAP in April. For more information about NECAN contact Julianna Mullen, [julianna@neracoos.org](mailto:julianna@neracoos.org).

NERACOOS and their partners continue to work on two awards focused on improving modeling in the Northeast. The first award is from NOAA's National Centers for Coastal Ocean Science and NOAA's Ocean Acidification Program for development of a predictive model for ocean acidification thresholds in the Northeast. The second award is from the IOOS Coastal Ocean Modeling Testbed program. The goal for this 3-year project is to deliver improved ocean and coastal inundation forecast products to key end users in the Northeast where severe weather events cause coastal inundation, flooding, erosion and other damages. For more information about NERACOOS and any of these projects please contact Jake Kritzer, [jake@neracoos.org](mailto:jake@neracoos.org).

### **Gulf of Maine Council**

Prassede Vella provided an overview of recent Gulf of Maine Council meetings and activities. A joint Council-Working Group meeting was held virtually in December 2020. Council and Working Group discussed engagement opportunities with other cross border entities and talked about ongoing programs within member states/provinces including the Maine Climate Council's Climate Action Plan. A presentation on Best Practices to Empower Coastal Resilience and Support Equity Among Resource-Poor Communities was provided by Tora Johnson from the University of Maine at Machias, Maine. The next joint meeting will take place during June 2021.

GOMC submitted a proposal to the FY21 North America Marine Debris Prevention and Removal Program to create an international collaborative approach to addressing marine debris in the Gulf of Maine. Project partners include Urban Harbors Institute, Surfrider Foundation, Center for Coastal Studies, Blue Ocean Society, NH Coastal Program, and Huntsman Marine Science Centre. The project would implement gulf-wide and targeted actions to reduce and prevent the introduction of marine debris into the Gulf of Maine in support of the 2019 Gulf of Maine Marine Debris Action Plan.

GOMC will host a 2021 awards program to recognize individuals and organizations making a difference in the Gulf of Maine. Nominations will be accepted through April 30. Details are available at: <https://gulfofmaine.org/public/gulf-of-maine-council-on-the-marine-environment/awards/>.

Gulf of Maine Council is exploring opportunities to create a 'special waters' or similar designation for the Gulf of Maine. This effort builds on findings from the Gulf of Maine 2050 international symposium which highlighted challenges facing the Gulf of Maine ecosystem in the context of climate change. As a follow up from the symposium, a series of scientific papers will be published in the journal *Elementa* during 2021. These papers will inform efforts to consider a Gulf of Maine designation.

### **New England Federal Partners**

Rick Bennett, US Fish and Wildlife Service provided an update on behalf of the New England Federal Partners (NEFP). NEFP discussed the following topics during their March 2021 meeting:

1. Partners discussed potential topics for an EPA/NEFP joint Tribal Leader summit scheduled for April 7<sup>th</sup>, 2021. Suggested topics from the tribes focused on climate adaption/resilience, tribal watershed restoration and Tribal consultation. Tribal leader meetings typically occur in Spring and Fall. Due to COVID, the last two meetings were cancelled. The last time NEFP were involved in a joint summit was 2016.
2. Based on discussions from previous NEFP meetings, partners discussed if there was:
  - Guidance needed to a particular sector?
  - What sort of federal coordination is needed with topics?
  - Would a community of practice be valuable?
  - Is anything 'widely available' on the topic we should link to?
  - Are there new initiatives under these topics that could drive more fed collaboration?

Themes discussed included:

- Clean energy/renewables - terrestrial and ocean/coastal (USGS, EPA, USDA, NOAA)
  - Infrastructure (transportation, green, buildings, and utilities) (EPA, DOT/Volpe, NOAA, FEMA, USGS, NPS, USACE, HUD, DHS/IP)
  - Habitat Protection - terrestrial and marine (USFWS, NPS, NOAA, EPA, USGS, USDA, USACE)
  - Place-based Coordination - (regional, state, tribal (EPA, USDA, USGS, FEMA, NOAA)
3. Based on the themes developed during the March NEFP meeting three groups were established. The expectation is that the teams will meet at least once before the scheduled June 2021 NEFP meeting to further define the issues and how we can collaboratively work together to make a difference. The groups established are:
    - USACE and USFWS will lead a combined NATURE-based infrastructure group, with an additional focus on habitat protection,
    - EPA and NOAA will co-lead the effort on stormwater infrastructure, and
    - Clean energy – EPA and USDA will share information as it becomes available and look for DOE contact.
  4. Round robin discussion on the new administrations priorities and the Executive Order on "[Tackling the Climate Crisis at Home and Abroad](#)" and the 30 by 30 agenda, an effort to conserve at least 30% of US land and ocean by 2030 followed by general partner updates.

## NOAA Office of Coastal Management

NOAA's Office of Coastal Management highlighted the following updates and resources with briefing materials for the meeting.

### Funding

- [National CZM Program FY20 Funding Summary](#)
- Through NOAA's Regional Data Sharing Initiative, OCM will distribute a third year of funding to NROC to enhance capacity for sharing and integration of Federal and non-Federal data to support regional coastal and ocean management priorities. We would like to see our regional partners pursue activities and capacity that improve data, data accessibility, and data products or platforms.
- [National Coastal Resilience Fund](#), a partnership between NOAA Office for Coastal Management and the National Fish and Wildlife Foundation, will award approximately \$34 million in grants to create and restore natural systems in order to increase protection for communities from coastal storms, sea- and lake-level changes, inundation, and coastal erosion, while improving habitats for fish and wildlife species. Pre-proposals are due April 7th. Invitations for full proposals will follow.

### Trainings

- OCM now has 15 virtual training classes! To see what's available go to the Digital Coast [Training](#) page and select the link for "Online, Instructor-led" courses for a quick review.
- *NEW!* [Economic Guidance for Coastal Management Professionals](#) webinar on April 14th from 2-3:30ET. Register [here](#). If you can't get in, there will be additional offerings for May 26 and July 20. This training provides information about a benefits-cost analysis, economic impact analysis, cost-effectiveness analysis, and more.
- [Seven Best Practices for Risk Communication](#) on April 22 from 2-3:30ET. Register [here](#). We focus on risk communication best practices and techniques, fundamentals of behavior change, and adapting successful strategies from case studies.
- If you feel a little (or a lot!) overwhelmed by the number of resources available on the Digital Coast, [Diving Into the Digital Coast](#) could be the virtual training for you! If you request this training, you can tell us your coastal management topic of interest (flooding, sea level rise planning, living shorelines, etc.), and we will provide instruction on helpful Digital Coast resources. We can incorporate local tools, projects, and guest speakers as well.

### Learning Resources and Products

- *NEW!* [Funding and Financing: Options and Considerations for Coastal Resilience Projects](#) is hot off the press. This is a great publication that covers some creative options for financing resilience work. We will also have webinars on this topic (Funding and Financing Coastal Resilience: The Basics) in May and June.
- Check out our [Nature Based Solutions: Benefits, Costs, and Economic Assessments](#) resources! Use these quick references to think about the benefits of nature-based solutions, installation and maintenance costs, and the costs of benefits of reducing coastal hazard impacts.

- Many of us are thinking about diversity, equity, and inclusion in our work. To help with this, our newest risk communication product is [Enhanced Engagement and Risk Communication for Underserved Communities: Research Findings and Emerging Best Practices](#).
- COMING SOON! Online module on economic assessments is coming later this spring. It will complement the economic guidance webinar, providing a deeper, self-paced dive into different economics approaches useful for estimating project benefits.

#### Technical Assistance

- If you would like technical assistance for economic issues, to brainstorm, or just have us review your documents, please email us at [econguidance@noaa.gov](mailto:econguidance@noaa.gov).

#### Legislative Updates: Overview of NOAA legislation passed since last NROC meeting that may be of interest to member agencies & partners

- Summary of S.1069, Digital Coast Act
  - Provides statutory authority for and revises NOAA's Digital Coast program. The program currently exists under NOAA to provide data, tools, and training that communities use to manage their coastal resources.
  - NOAA must focus on filling data needs and gaps for critical coastal management issues and support continued improvement in existing efforts to coordinate the acquisition and integration of key data sets needed for coastal management.
  - NOAA may enter into financial agreements and collect fees to carry out the program. Additionally, NOAA may establish publicly available tools that track ocean and Great Lakes economy data for each coastal state.
- Summary of S.910, National Sea Grant College Program Amendments
  - Revises and reauthorizes the National Sea Grant College Program, through which NOAA supports university-based programs that focus on studying, conserving, and effectively using U.S. coastal resources.
  - Reauthorizes grants for (1) university research on the biology, prevention, and control of aquatic nonnative species; (2) university research on oyster diseases, oyster restoration, and oyster-related human health risks; (3) university research on the biology, prevention, and forecasting of harmful algal blooms; and (4) fishery extension activities conducted by sea grant colleges or sea grant institutes to enhance existing core program funding.
  - Authorizes grants for (1) priority issues identified in the National Sea Grant Program's strategic plan, and (2) university research on sustainable aquaculture techniques and technologies.
  - Requires NOAA to award John A. Knauss Marine Policy Fellowships, which support the placement of graduate students in fields related to ocean, coastal, and Great Lakes resources in positions with the executive and legislative branches.
- Summary of S.914, Coordinated Ocean Observations and Research Act of 2020
  - Advances and promotes a number of NOAA's responsibilities and authorities related to coastal and ocean observations, ocean acidification research, storm modeling, and water prediction and forecasting.

- Reauthorizes and revises the Integrated Ocean Observing System (IOOS), a network of federal and regional entities that provide information about the nation's coasts, oceans, and Great Lakes, as well as new tools and forecasts to improve safety, enhance the economy, and protect the environment.
- Revises the authority of NOAA to conduct scientific assessments related to storms, including to (1) direct NOAA to seek public input before the Named Storm Event Model takes effect, and (2) allow NOAA to deploy sensors to areas in coastal states that are at the highest risk of experiencing geophysical events that would cause indeterminate losses.
- Provides statutory authority for NOAA's National Water Center and directs NOAA's National Weather Service (NWS) to make a policy directive for the National Water Center publicly available. The NWS must also (1) initiate and lead all research and development activities to develop operational water resource prediction and related decision support products, (2) collaborate with relevant state and federal agencies regarding total water prediction, and (3) collaboratively develop capabilities necessary for total water predictive capacity.
- Summary of S.1982, Save our Seas 2.0 Act
  - Establishes requirements and incentives to reduce, recycle, and prevent marine debris (e.g., plastics).
  - Amends the Marine Debris Act, reauthorizes NOAA's marine debris program, and calls for enhanced global and interagency engagement on marine debris. It requires the establishment of a Marine Debris Response Trust Fund, a Marine Debris Foundation, a Genius Prize for Save Our Seas Innovations.
  - Requires EPA to develop a strategy to improve waste management and recycling infrastructure, a Waste Management Revolving Fund for states, a Waste Management Infrastructure Grant program, a Drinking Water Infrastructure Grant program, a Wastewater Infrastructure Grant program, and a Trash-Free Water Grant program.

## Data Updates

### *Elevation:*

- [2018 USACE NCMP Topobathy Lidar: East Coast \(ME, NH, RI, SC\)](#)
- [2018 USACE NCMP Topobathy Lidar DEM: East Coast \(ME, NH, RI, SC\)](#)
- [2018 - 2019 State of Maine Lidar: Crown of Maine](#)

### *Imagery:*

- [2018 USACE NCMP Phase One Natural Color 8 Bit Imagery: Coastal Rhode Island](#)
- [2018 USACE NCMP Phase One Natural Color 8 Bit Imagery: Coastal New Hampshire](#)
- [2018 USACE NCMP Phase One Natural Color 8 Bit Imagery: Coastal Maine](#)
- [2018 USACE NCMP Phase One 4-Band 8 Bit Imagery: Coastal Massachusetts](#)
- [2018 USACE NCMP Phase One 4-Band 8 Bit Imagery: Coastal Rhode Island](#)
- [2020 NOAA NGS DSS Infrared 8 Bit Imagery: Boston, MA](#)
- [2020 NOAA NGS DSS Infrared 8 Bit Imagery: Salem, MA](#)
- [2020 NOAA NGS DSS Infrared 8 Bit Imagery: Portland, ME](#)
- [2020 NOAA NGS DSS Natural Color 8 Bit Imagery: Boston, MA](#)
- [2020 NOAA NGS DSS Natural Color 8 Bit Imagery: Salem, MA](#)

- [2020 NOAA NGS DSS Natural Color 8 Bit Imagery: Portland, ME](#)

*Salt Marsh:*

- [2013 Salt Marsh Habitat: New Hampshire](#)
- [2010 Salt Marsh Resilience](#)

**HIGHLIGHTS FROM NOAA COASTAL MANAGEMENT FELLOW**

Ben Sweeney, NOAA Coastal Management Fellow for the NH Coastal Program provided an overview of his work on developing stormwater funding mechanisms in Dover, NH and opportunities to integrate diversity, equity, justice and inclusion into state coastal resilience policies for New Hampshire. A copy of Ben's presentation is available on the NROC website along with meeting materials at:

<http://northeastoceancouncil.org/library/>

**NROC COMMITTEE ACTIVITIES AND OPPORTUNITIES FOR COLLABORATION**

Lisa Engler shared an organizational chart and provided an overview of the structure and areas of focus for NROC's three primary committees that work to advance regional priorities: 1) Coastal Hazards and Resilience, 2) Ocean and Coastal Ecosystem Health, and 3) Ocean Planning.

**NROC Ocean and Ecosystem Health Committee**

Integrated Sentinel Monitoring Network (ISMN). Jeff Runge provided a brief overview of the following ISMN activities since the NROC November 2020 meeting.

- Submission in December 2020 of NERACOOS strategic proposal included partial funding for ISMN governance and long-term sampling at the two ISMN-MBON fixed stations
- Launched ISMN website (<https://www.sentinelmonitoring.org/>). Next step will be adding links to observing data sets.
- Worked on report on status of NE marine ecosystem sentinel variables (funded by Gulf of Maine 2050 award)
- Recent Marine Biodiversity Observation Network (MBON) activities:
  - Sampling at fixed stations
  - Canada-US collaboration on modeling of zooplankton prey concentrations for NOAA North Atlantic right whale foraging habitat model
  - MBON National Meeting in February: Marine biodiversity observing and application to management and conservation of ecosystem services
- Facilitation of eelgrass observing and analysis

Steve Couture reported that OCEH is looking for opportunities to build on the EPA funded NROC project that has been updating data sets and developing blue carbon data products for the Northeast Ocean Data Portal. The committee is aiming to host a workshop in the fall focused on next steps.

Steve also noted that NERACOOS submitted a proposal for funding to NOAA for NECAN including opportunities to better integrate ISMN / NECAN. Highlights from the proposal include:

- NECAN will plan to coordinate and collaborate with federal and regional programs that share common interests and objectives.

- NECAN will routinely meet with the NOAA OAP, IWG-OA, and other regional CANs in the creation and dissemination of an Ocean Chemistry Coastal Community Vulnerability Assessment to meet the legislative mandate of the Coordinated Ocean Observations and Research Act of 2020 which changes and updates the text of the Federal Ocean Acidification Research and Monitoring Act (FOARAM) of 2009.
- NECAN will work with the Integrated Sentinel Monitoring Network to identify areas of overlap between the Northeast’s regional acidification response strategy and biodiversity monitoring strategy.

Habitat Classification and Ocean Mapping (HCOM) included this update in the meeting briefing materials:

- New England CZM and other experts are contributing strongly to updates of CMECS that are in process.
- Gulf of Maine geomorphology mapping project is leveraging expertise from around the nation as the work proceeds.

### **NROC Coastal Hazards Resilience Committee**

Julia Knisel, MA CZM and Adrienne Harrison, NOAA provided an update and facilitated discussion for the Coastal Hazards Resilience Committee (CHRC). A detailed update on the NOAA funded project, *Increasing Resilience and Reducing Risk through Successful Application of Nature Based Coastal Infrastructure Practices in New England*, is provided in the meeting packet at: <https://www.northeastoceancouncil.org/library/>. The living shorelines project has been the main focus of the committee over the last few years. The project is winding down over the next year and will be complete in March 2022. The project team in partnership with The Nature Conservancy recently finalized versions of the literature review as well as a monitoring and metrics protocol guide. Several living shoreline projects have been constructed and are now being monitored. Case studies are being developed to share permitting pathways and lessons learned. Several of the case studies will also be featured in a StoryMap. The project team is also working on developing regulatory guidance that will provide information about permitting pathways for each state and identify challenges associated with those pathways.

NROC members and partners were asked to provide input about priorities and opportunities for the Coastal Hazards Resilience Committee to consider as they prepare their work plans this year. Discussion was organized around the committee’s two overarching goals.

- Goal 1: Promote regional dialogue on broad-scale adaptation strategies for responding to the effects of sea level rise. Potential focus areas discussed:
  - Assist environmental justice communities
    - Connect with NOAA equity mapping
    - Connect with RI Sea Grant EJ Symposium – Fall 2021
    - Build on ‘communities at sea’ work
    - Maine Climate Council report on equity may be informative
  - Engage Sea Grant programs
  - Support BRIC applications to FEMA and funded projects
  - Help facilitate beneficial reuse



- Managed retreat (need project ideas for this one)
  - First step is floodproofing and raising structures (RI CRMC has 2 projects)
- Goal 2: Act on data acquisition priorities and user-friendly tools needed to support planning for and responses to coastal hazards. Potential focus areas discussed:
  - Continue to monitoring flood (and erosion) risk reduction of living shoreline pilot projects
    - Connect with US FWS as they have a standardized monitoring effort associated with Hurricane Sandy projects that may be useful
    - Connect with US ACE – all of their new projects consider natural and nature-based features
  - Promote living shorelines case studies – StoryMaps, guest blogs on partner sites (Ocean Conservancy)
  - Guidance for applying site specific assessments for impact of SLR and other coastal hazards (e.g., roadway, wastewater treatment facility)
  - Reengage with NERACOOS to look for synergies on coastal hazards work

### **NROC Ocean Planning Committee**

Committee Co-Chairs: Ted Diers, NH DES, Chris Boelke, NOAA

Nick Napoli, NROC, and Emily Shumchenia, NROC provided an overview of recent Ocean Planning Committee activities. Key focus areas for the Ocean Planning Committee are:

- Coordination and information sharing for ocean planning issues
- Best practices for ocean permitting and management
- Northeast Ocean Data Portal

### Offshore Wind Transmission

The NROC OPC, in collaboration with the Mid-Atlantic Regional Council on the Ocean (MARCO), held three webinars in January and February to increase understanding and promote dialogue about offshore wind transmission planning. The [videos and materials can be found on this website](#). In the next month, the NROC OPC will be considering potential next steps, including data sources that may inform cable and transmission planning and additional webinars focused on one or several of the themes that were raised by the audience.

### Aquaculture

The NROC OPC hosted a webinar on [Aquaculture Opportunity Areas](#) in October 2020. The OPC is currently considering a follow-up webinar focused on the regulatory responsibilities of the agencies. More details will be shared in the next month or two.

### Best Practices for Ocean Permitting and Management

The NROC OPC Best Practices Work Group has been drafting a set of Best Practices for Ocean Permitting and Management focused on (1) stakeholder outreach and engagement, (2) agency and interjurisdictional coordination, (3) the use of data and information, and (4) regulatory pre-application. Will be distributing a draft set of best practices soon. Many of the best practices are already reflected in NROC's Ocean Planning Committee work.

### Seafloor Habitat

Inspire Environmental and NROC have begun working with offshore wind companies and regulatory agencies to identify opportunities for integrating high resolution acoustic and imagery data into regional habitat products and making those data available via the Northeast Ocean Data Portal. This pilot project is being funded by BOEM, MA CEC, and RI DEM.

### Coastal Vegetation and Blue Carbon

The Northeast Ocean Data Portal is working with US EPA Region 1 and experts in the region to update the existing data layers depicting current and historical extents of eelgrass (*Zostera marina*), the current extent of tidal wetlands, and the development of new data products that represent stocks of blue carbon in the Northeast US associated with eelgrass and salt marsh habitats. This effort builds on datasets that have been hosted on the Portal for five years. <https://www.northeastoceandata.org/eelgrass/>

### Regional Data Sharing Funding

NROC has received three years of federal funding to advance regional data sharing and product development for ocean management issues in the region. The Northeast is one of nine regions participating in this program. The funds have or will be proposed to be used as follows:

- FY 2019: NROC, MARCO, and the Responsible Offshore Development Alliance (RODA), engaged the commercial fishing industry to obtain input on potential updates and modifications to the commercial fishing activity data on the Portals. A report with recommendations is being finalized. The recommendations have been used to inform reorganization and expansion of the collection of fisheries management data layers on the Portal (released in March) and to develop draft VMS products for 2015-2019.
- FY2020: In collaboration with MARCO, NROC has reconvened the Marine Life Work Groups to advise on updates to the marine mammal, sea turtle, bird, and fish/invertebrate data products on the portals. Specific outcomes for this project will include updates to right whale products (including shifts over time), movement products from USFWS and BOEM avian tagging, updates to fish products from NEFSC models to include recent years and shifts over time, and select species sensitivity and risk products for cetaceans and potentially fish.
- FY2021: Candidates for the use of FY21 funds include additional marine life products, continued commercial fishing data updates, updates to data about recreational uses, supporting the posting of data products related to agency actions on the Portal, and other data priorities identified in the [Northeast Ocean Data Portal Work Plan](#).

### Other Northeast Ocean Data Portal Updates

- In collaboration with BOEM, the Portal will continue to post updates as offshore wind planning and projects progress. The [Offshore Wind Projects](#) page on the Portal tracks the status of each lease area and each project. It also provides direct access to relevant maps, public documents, and public meetings for each lease and project area.
- In collaboration with Maine DMR, the Portal added [a map of the broad area of interest](#) for the Maine Floating Offshore Wind Research Array.

- In collaboration with USACE, the Portal will be adding a page that provides access to regulatory and permitting public notices.
- The Portal team has been collaborating with Whale Watch and SCUBA companies to obtain input on methods for updating recreational activity data. Final products from this collaboration will be posted by mid-April.
- Recent data updates and other news can be found on the [Portal's news page](#).

A copy of the Ocean Planning Committee's full presentation has been posted with the meeting materials at: <https://www.northeastoceancouncil.org/library/>.

### **NROC Next Steps for Work Plan Development**

NROC Committees will begin developing work plans this summer and present them for discussion during NROC's fall 2021 meeting. NROC's next meeting will take place this fall (September or October).

### **ADDITIONAL RESOURCES**

The following resources were shared in the chat during the meeting by NROC members and partners.

- Coastal States Identify Billions of Dollars of Coastal Infrastructure Needs  
<https://www.coastalstates.org/cso-statement-on-coastal-infrastructure-investments/>
- NOAA signs data-share agreement with offshore wind energy company  
<https://www.noaa.gov/media-release/noaa-signs-data-share-agreement-with-offshore-wind-energy-company>
- National Offshore Wind R&D Consortium Announces Projects Totaling \$8 Million.  
<https://www.energy.gov/eere/wind/articles/national-offshore-wind-rd-consortium-announces-projects-totaling-8-million>
- White House Fact sheet on Biden Administration offshore wind announcement:  
<https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>
- Bonamici, Posey Lead Bipartisan Call for \$10B Investment in Coastal Restoration Jobs.  
<https://bonamici.house.gov/media/press-releases/bonamici-posey-lead-bipartisan-call-10b-investment-coastal-restoration-jobs>
- Advancing Research for the Co-Existence of Fishing, Coastal Communities and Regional Ocean Renewable Energies (RFP). <https://seagrant.mit.edu/ocean-energy-research/>
- Columbia Climate School, Managed Retreat Conference, June 22- 25, 2021.  
<https://adaptation.ei.columbia.edu/content/2021-conference-homepage>
- USACE Programs for Ecosystem Restoration
  - <https://www.nae.usace.army.mil/Missions/Public-Services/Ecosystem-Restoration-Authorities/>
  - <https://www.nae.usace.army.mil/Missions/Public-Services/Continuing-Authorities-Program/Section-103/>
- Maine SLR Ticker and Dashboard Sites
  - [https://www.maine.gov/dacf/mgs/hazards/slr\\_ticker/index.html](https://www.maine.gov/dacf/mgs/hazards/slr_ticker/index.html)
  - [https://mgs-collect.site/slr\\_ticker/slr\\_dashboard.html](https://mgs-collect.site/slr_ticker/slr_dashboard.html)

- Hydrological Evaluation of Tidal Restrictions at Rumney Marsh in Saugus and Revere, Massachusetts: <https://www.youtube.com/watch?v=YGuUNEjdFdU>
- Maine Climate Council – report on equity. [https://climatecouncil.maine.gov/future/sites/maine.gov.future/files/inline-files/MCC\\_EquityAssessmentReport\\_201007.pdf](https://climatecouncil.maine.gov/future/sites/maine.gov.future/files/inline-files/MCC_EquityAssessmentReport_201007.pdf)
- Engineering with Nature, An Atlas. <https://ewn.el.erdc.dren.mil/atlasv2.html>

NROC meeting adjourned at approximately 12:30 PM

*Meeting summary prepared by Joan LeBlanc, NROC Coordinator*

*Briefing Packet and presentations are available under Council Meeting Materials at:  
<http://northeastoceancouncil.org/library/>*