NROC Meeting
Wednesday, November 9, 2022
9:00 AM – 3:30 PM

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

Meeting Packet

Virtual Access Details, p. 5

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NROC Meeting Agenda | Wednesday, November 9, 2022 NHDES, 222 International Drive, #175, Portsmouth, NH 03801	
9:00 AM	**Welcome and Overview of Meeting Agenda** *NROC Co-Chairs: Lisa Engler, MA CZM and Betsy Nicholson, NOAA*
9:05 AM	**Updates from NROC Executive Committee, Federal Partners, and State Partners** *Lisa Engler, MA CZM; Betsy Nicholson, NOAA; and NROC state partners* • NROC Co-Chairs and Executive Committee Updates (10 minutes) • Key highlights from NROC federal partners (20 minutes) • Key highlights from NROC state partners (25 minutes)
10:00 AM	**NROC Partner Updates** (*partners highlight one or two key news items)* • Northeast Sea Grant Consortium, *Gayle Zydlewski, Maine Sea Grant (5 minutes)* • NERACOOS, *Jackie Motyka (5 minutes)* • Gulf of Maine Council, *Prassede Vella, MassBays (5 minutes)* • NE Federal Partners, *Rick Bennett, US FWS (5 minutes)*
10:20 AM	**National Updates from White House Office of Science and Technology Policy** *Deerin Babb-Brott, White House Office of Science and Technology Policy*
10:50 AM	**Working Session: NROC Infrastructure Investment and Jobs Act (IIJA) Funding** *Nick Napoli, NROC Executive Director* • Overview of IIJA funding for NROC • Introduction to NROC working sessions to discuss NROC Committee plans and next steps for IIJA funded projects

11:00 AM	**Working Session 1: NROC Coastal Hazards Resilience Committee (CHRC)**
	NROC CHRC Co-Chairs: Julia Knisel, MA CZM; Gavin Jackson, CT DEEP; Dani Boudreau, NOAA
	• Membership and leadership (5 minutes)
	• Water level sensor project (40 minutes)
	  ○ Project overview, *Julia Knisel, MA CZM and Jackie Motyka, NERACOOS* (10 minutes)
	  ○ USGS SWaTH Network, *Jonathan Morrison, USGS* (10 minutes)
	  ○ Discussion to detail scope of work, next steps and use of IIJA funds (20 minutes)
	• Other IIJA funded CHRC projects (15 minutes)
	  ○ Overview of living shorelines phase 2 project and sea level rise workshop, *Julia Knisel, MA CZM and Gavin Jackson, CT DEEP (10 minutes)*
	  ○ Discussion to detail next steps and use of IIJA funds (5 minutes)

12:00 PM	**Lunch Break** – lunch will be provided on site

1:00 PM	**Working Session 2: NROC Ocean and Coastal Ecosystem Health (OCEH) Committee**
	NROC OCEH Co-Chairs: Steve Couture, NH DES; Regina Lyons, EPA
	• Membership, committee structure, and leadership (10 minutes)
	• Seafloor mapping in the Gulf of Maine (30 minutes)
	  ○ Status update from Habitat Classification and Ocean Mapping Subcommittee, *Claire Enterline, ME DMR (*15 min)
	  ○ Discussion to detail scope of work, next steps and use of IIJA funds (15 minutes)
	• Coastal and Ocean Acidification (35 minutes)
	  ○ Project overview, *Jackie Motyka, NERACOOS* (20 minutes)
	  ○ Discussion to detail scope of work, next steps and use of IIJA funds (15 minutes)

2:15 PM	**Working Session 3: NROC Ocean Planning Committee (OPC)**
	NROC OPC Co-Chairs: Ted Diers, NH DES; Lou Chiarella, NOAA
	• Membership and leadership (10 minutes)
	• Marine life data development (35 minutes)
	  ○ Overview of work to date and potential scope of work for IIJA funds, *Emily Shumchenia, NROC*, and *Corrie Curtice, Duke University* (20 minutes)
	  ○ Discussion to detail next steps and use of IIJA funds (15 minutes)

3:00 PM	**NROC Next Steps** *NROC Co-Chairs: Lisa Engler, MA CZM and Betsy Nicholson, NOAA*
3:20 PM	**NROC Leadership Transition** Passing the 'rock' to incoming NROC Co-Chairs: *Jeff Willis, RI CRMC*, and *Rick Bennett, USFWS*
3:30 PM	**Adjourn**

Access for Virtual Participation

Topic: NROC Fall 2022 Meeting
Time: Nov 9, 2022 09:00 AM Eastern Time (US and Canada)

Join Zoom Meeting
https://us02web.zoom.us/j/84938824875?pwd=N1NLaG1EdTU4eEE1ZDVJaDYzSHJLUT09

Meeting ID: 849 3882 4875
Passcode: 529900
One tap mobile
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+13092053325,,84938824875#,,,,*529900# US

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- +1 564 217 2000 US
- +1 669 444 9171 US
- +1 669 900 6833 US (San Jose)
- +1 689 278 1000 US
- +1 719 359 4580 US
- +1 253 215 8782 US (Tacoma)
- +1 346 248 7799 US (Houston)
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- +1 507 473 4847 US

Meeting ID: 849 3882 4875
Passcode: 529900
Find your local number: https://us02web.zoom.us/u/kJ686E1h5

NROC Funding from Infrastructure Investment and Jobs Act

Status: NROC has applied for funding / NOAA approval pending

1. NOAA-NOS-OCM-2022-2007464
   - Project*: Implementation and Coordination of Coastal and Ocean Management Priorities for the Northeastern United States via the Northeast Regional Ocean Council*
   - Total Requested: $3,924,563
     - December 1, 2022 – November 30, 2023: $1,962,144
     - December 1, 2023 – November 30, 2024: $1,962,419
   - Leads: NROC (via Coastal States Stewardship Foundation as fiscal sponsor). Projects will be led by NROC Executive Committee and Coastal Hazards Resilience Committee (CHRC), Ocean and Coastal Ecosystem Health Committee (OCEH), and Ocean Planning Committee (OPC)
   - Potential Funding Period: December 2022 - November 2024
   - Project Details**:** See *pp. 21-27* for a summary of proposed projects and potential partners

Ocean Planning Committee

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

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

4. 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

5. FY2022 NOAA Regional Ocean Data Sharing/Regional Ocean Partnership Funding
   - Project: *Update fishing, marine life, recreation, maritime, sand resource, and other data on the Northeast Ocean Data Portal*
   - Award: $204,000

- Lead: NROC (via Coastal States Stewardship Foundation as fiscal sponsor)
- Funding Period: July 2022 – September 2023

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

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

   The Regional Wildlife Science Collaborative for Offshore Wind (RWSC) is funded through a mix of member dues, in-kind contributions, projects, and research funding. In FY 2022 (July 1 2021 – June 30 2022), RWSC received $397,350, of which $302,000 was from membership dues from 18 individual entities (states, eNGOs, offshore wind companies). RWSC expects a similar level and mix of funding for FY 2023, in addition to funds to support staff time from the following existing projects and research:
   - Power analysis for optimal design of a Passive Acoustic Monitoring network in the Atlantic Ocean – Bureau of Ocean Energy Management
   - Developing a baleen whale monitoring plan for Virginia's Wind Energy Area – Virginia Department of Environmental Quality
   - Wildlife and Offshore Wind (WOW): A systems approach to research and risk assessment for offshore wind development from Maine to North Carolina – Duke University – Department of Energy, Bureau of Ocean Energy Management

NOAA Office for Coastal Management Updates – November 2022

Submitted by NOAA Office for Coastal Management

Geotools – Registration and Call for Abstracts
Registration is now open for Coastal Geotools, which will be held February 6 to 9, 2023, in Charleston, South Carolina. Visit the Coastal Geotools website to register or submit your abstract.

New Products on Digital Coast

- Climate Explorer – Explore how climate is projected to change in any U.S. county
- AccessAIS – Access and download AIS Vessel Traffic data
- Funding and Financing Resilience – Webinar 4: Spotlight on Building Capacity in Communities to Access Funding

New Stories

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

Upcoming Events

- Seven Best Practices for Risk Communication, November 9, 2022. 1:00 to 2:30 p.m. Eastern. REGISTER.

Digital Coast Academy: Trainings and Learning Products

Engagement

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

Funding and Financing Coastal Resilience

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

Resilience

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

Risk Communications

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

Additional trainings and on-demand products can be found on the Digital Coast Academy website

Bureau of Ocean Energy Management (BOEM) Updates – November 2022

Submitted by Lean Bullin, BOEM

10/26/2022 | Note to Stakeholders

BOEM Seeks Public Comment on Proposed Guidance for Submission of Offshore Wind Project Plans

(https://www.boem.gov/newsroom/notes-stakeholders/boem-seeks-public-comment-proposed-guidance-submission-offshore-wind)

10/26/2022 | Note to Stakeholders

BOEM Encourages Nominations for New National Academies Committee for Offshore Wind Energy and Fisheries

(https://www.boem.gov/newsroom/notes-stakeholders/boem-encourages-nominations-new-national-academies-committee-offshore)

10/21/2022 | Press Release

BOEM and NOAA Fisheries Announce Draft North Atlantic Right Whale and Offshore Wind Strategy

(https://www.boem.gov/newsroom/press-releases/boem-and-noaa-fisheries-announce-draft-north-atlantic-right-whale-and)

09/27/2022 | Note to Stakeholders

You're Invited: Public Meetings on Draft Environmental Analysis for Proposed Wind Energy Project Offshore Rhode Island

(https://www.boem.gov/newsroom/notes-stakeholders/youre-invited-public-meetings-draft-environmental-analysis-proposed)

09/16/2022 | Note to Stakeholders

BOEM Enhances its Processes to Identify Future Offshore Wind Energy Areas

(https://www.boem.gov/newsroom/notes-stakeholders/boem-enhances-its-processes-identify-future-offshore-wind-energy-areas)

08/18/2022 | Press Release

Biden-Harris Administration Continues Offshore Wind Momentum, Announces Next Steps for Gulf of Maine

(https://doi.gov/pressreleases/biden-harris-administration-continues-offshore-wind-momentum-announces-next-steps-gulf)

May 2022 | Fact Sheet

Gulf of Maine Environmental Studies Overview

(https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/GoME%20Environmental%20Studies%20Fact%20Sheet_May2022.pdf)

US Army Corps of Engineers (USACE) Updates – November 2022

Submitted by Larry Oliver, USACE

Disposal Area Monitoring System Reports

USACE has added two reports to the Disposal Area Monitoring System (DAMOS) website:

- Summary Report of the Restoration Activities at the Massachusetts Bay Disposal Site 2017 – 2020 and
- Monitoring Survey of the Cape Arundel Disposal Site September 2020 (https://www.nae.usace.army.mil/Missions/Disposal-Area-Monitoring-System-DAMOS/Reports/).

USACE Project Updates

Updates about individual USACE projects are located here: https://www.nae.usace.army.mil/media/state-update-reports/

Northeast Sea Grant Consortium Update
November 9, 2022

New York, Connecticut, Rhode Island (including RI SG Law Program), Massachusetts - WHOI and MIT, New Hampshire, Maine

Sea Grant Northeast

https://www.northeastseagrant.com/

- Regional research and extension update
  - Ocean Renewable Energy
  - American Lobster Initiative
  - Other Regional Programs
- New funding
  - Marine Debris (Infrastructure Bill - $50M over 5 years)
  - Coastal Resilience (minimal base funding)

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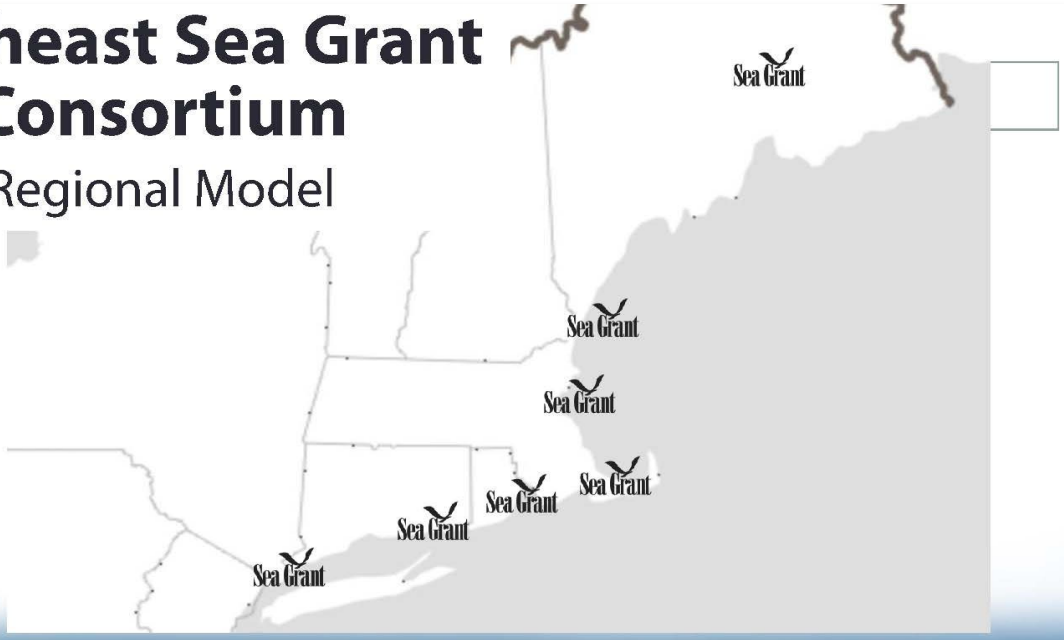
Northeast Sea Grant Consortium

Regional Model



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Regional Initiatives

Sea Grant Northeast

https://www.northeastseagrant.com

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Northeast Sea Grant Consortium

2022-2023 – American Lobster Initiative

Scan for ALI StoryMap

American Lobster Research Program

- Currently 24 affiliated projects
- Researchers from 40+ institutions across the Northeast
- Students, industry members, non-profits, government, academia

Northeast Regional Lobster Extension Program

- The 7 Northeast Sea Grant Programs (ME, NH, MIT, WHOI, RI, CT, and NY)
- Adds value to state-specific projects, addresses emerging regional needs
- Informed by a Regional Steering Committee

Sea Grant Northeast

https://seagrant.umaine.edu/extension/american-lobster-initiative/

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Northeast Sea Grant Consortium

2022-2023 – American Lobster Initiative

2 Newly Funded Research Projects:

- **PI: Kevin Staples – Maine Department of Marine Resources**
  The purpose of this award is the testing and evaluation of various gear modification technologies aboard commercial vessels, including spring-tag and timed release systems and subsea gear location integrations with chart plotting systems, and will collect information on the performance of these systems and how time spent fishing and trap retrieval success are affected.
- **PI: Erin Pelletier– Gulf of Maine Lobster Foundation**
  The purpose of this award is to provide lobstermen the necessary data imaging tools to navigate a changing environmental and regulatory landscape. The researchers propose new sensor deployments, model development, and data products that will effectively deliver critical information to the fleet.

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Northeast Sea Grant Consortium

2022-2023 – Offshore Renewable Energy

Partnership with DOE and NEFSC

- **PI: Heather Leslie – University of Maine -** **Building Capacity for Participatory Approaches to Community Resilience and Ocean Renewable Energy Siting** - characterize values and beliefs in three communities to understand where ocean renewable energy is a good fit for people and place, and develop a community toolkit with maps, surveys, and participatory practices that can be applied across the Northeast.
- **PI: Kate Beard-Tisdale – University of Maine -** **Can Proprietary Commercial Lobstering Data be Used to Inform Offshore Wind Development?** - create a standardized procedure for constructing representations of the Maine lobster fishery using data and knowledge from individual fishermen, and develop data product models and sample products that will inform fisheries management and marine spatial planning.
- **PI: Alison Bates - Colby College** - **Community Engagement and Stakeholder Perceptions of Floating Offshore Wind** - develop a stakeholder database, survey tools, and holistic outreach strategy to evaluate community perceptions of offshore wind, identify the capacity and necessary conditions for stakeholders to coexist with offshore wind, and present recommendations for equitable solutions.

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Northeast Sea Grant Consortium

2022-2023 – Offshore Renewable Energy Partnership with DOE and NEFSC

- **PI: Emily Diamond - University of Rhode Island** - **Evaluating Messaging, Communication Networks, and Public Engagement on Offshore Wind Development in Southern New England** - analyze public engagement strategies, messages, networks, and sources used to communicate and engage communities and stakeholders in decision-making for proposed offshore wind projects, and incorporate community perspectives to make recommendations for effective and equitable messaging and strategies.
- **PI: David Bidwell, University of Rhode Island** - **Regional Community Attitudes Regarding Procedural and Distributive Justice Dimensions of Southern New England Offshore Wind Development** - assess community concerns and research questions regarding procedural, distributive, and recognitional justice dimensions of offshore wind projects in southern New England, and work to address barriers within and among communities to ensure equity and well-being for a just energy transition.
- **PI: Maha Haji, Cornell University** - **Achieving Community Resilience by Optimizing Symbiotic Offshore Renewable Energy and Food Systems** - develop a mapping tool for spatial planning allowing for the integration of multiple ocean uses in the same area. The goal is to enable symbiosis between renewable energy and food systems and empower stakeholders, fishers, aquaculture farmers, and developers to make informed decisions for long-term resilience.

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Other Regional Contributions

- **Seaweed Hub** - https://seaweedhub.org/
- **Striper Hub**
- **Southern New England Shellfish Hub**
- **East Coast Hard Clam Selective Breeding Hub**
- **Contaminants of Emerging Concern Project**

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New/Continuing Initiatives

- **National**
  - Aquaculture
  - Marine Debris (Infrastructure Bill - $50M over 5 years)
  - Coastal Resilience - *since 2021 working on this focused initiative across the network - Coastal communities are more resilient to **weather and climate hazards** with Sea Grant support through coastal **research, education, engagement, and outreach** that informs and helps improve **planning and risk assessment, disaster preparedness and recovery, resilience design and project implementation**, and by addressing long-standing economic and social inequities that cause some communities to be more vulnerable to the impacts of hazards.*
    - Building off internal and partner discussions about needs/opportunities
- **Regional Initiatives**
  - American Lobster Initiative – anticipating another research call
  - Considering another Ocean Renewable Energy/Co-existence call – looking for partners

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Sea Grant Biennial Research Funding

2024-2026 RFPs will open in 'soon'

by January 2023

For more information:

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

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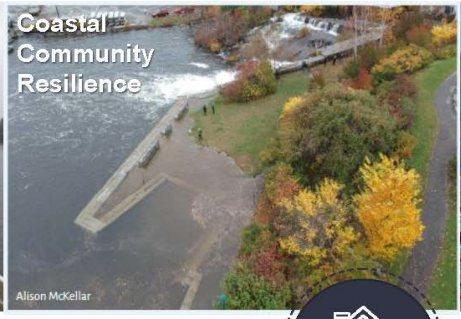
National Initiatives



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National Initiatives - DEIJA

Reaching Outward and Looking Inward
Building Sea Grant Resilience from the lens of Diversity, Equity, Inclusion, and Justice
10 year vision

Sea Grant Diversity, Equity, Inclusion, and Justice

Community of Practice and Resources page

Marine Science for Maine People

Gulf of Maine Council on the Marine Environment Update - November 2022

Submitted by GOMC Working Group Chair Prassede Vella, MassBays

GOMC July 2022 Meeting

The Gulf of Maine Council hosted an in-person meeting in Portland, Maine on July 28 and 29, 2022. Presentations and discussion covered the following topics:

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

GOMC 2022 Awards Program

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

Regional Collaboration to Address Marine Debris in the Gulf of Maine

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

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

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

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

GOMC Next Meeting

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

NROC Funding from Infrastructure Investment and Jobs Act

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

NROC submitted a proposal for funding of $3,924,563 through NOAA's Funding Opportunity NOAA-NOS-OCM-2022-2007464 to support implementation and coordination of coastal and ocean management priorities for the Northeastern United States. Pending approval from NOAA, the two-year project period is expected to be December 1, 2022 through November 30, 2024. NROC seeks to utilize Infrastructure Investment and Jobs Act (IIJA) funding in collaboration with partners to implement the following projects and activities (organized by NROC Committee).

Coastal Hazards Resilience Committee (CHR) Activities

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

Key Partners: NERACOOS, NOAA, USGS

2: Advance the establishment of living shorelines in New England
NROC recently completed a 5-year project with The Nature Conservancy (TNC) focused on implementing pilot projects and improving the understanding of techniques, monitoring protocols, and permitting for living shorelines in New England. This project resulted in a new list of research and outreach needs to support the continued interest and investment in living shorelines projects in the region. Proposed activities include:

- Host a forum with USACE and USFWS to consider challenges and mitigation opportunities.
- Organize and host a workshop focused on exploring habitat tradeoffs of living shorelines projects in the context of climate change. The topic of habitat conversion and habitat tradeoffs is of high interest to the NROC CHR committee and can inform project design and permitting of living shoreline projects.
- Continue to assess the success of pilot living shoreline demonstration projects and convene project managers to share results, protocols, monitoring metrics, and best practices.

- Conduct outreach and engagement with landowners, engineers, and communities about the benefits of living shorelines and lessons learned regarding habitat enhancement and tradeoffs, project design and monitoring.

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

3: Develop approaches for integrating sea-level rise projections into planning tools and policies
In the past, the NROC CHR Committee has focused on sharing tools, guidance, and case studies on planning for sea level rise (SLR). New data, updates to national and state or local models, and new or updated visualization tools create an opportunity for NROC to serve as a forum for sharing approaches to communicating new information, reviewing guidance, and incorporating SLR projections into policies and planning processes. NROC will host a roundtable on updated SLR projections and planning guidance, centering around the newly released NOAA data. NROC will invite NE regional partners to discuss best practices and lessons learned for communicating new and updated information (e.g., probabilistic projections). There is also an opportunity to host a NOAA training related to the new projections, guidance, and communicating risk information. This is a timely topic as states are actively developing SLR risk assessments, plans, policies and regulations.

Key Partners: NOAA

Ocean and Ecosystem Health Committee (OCEH) Activities

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

- Regularly convene the ISMN Oversight Committee to provide overall direction for continued development of the ISMN, including the drafting of a report summarizing progress to date and identifying priorities for continued development.
- Inventory and review monitoring, data development, and reporting for each sentinel indicator to better understand progress developing the ISMN and where additional effort may be necessary.
- Identify other regional or basin wide monitoring and assessment programs to better understand existing efforts in the region and where additional coordination may be necessary to develop aspects of the ISMN.
- Produce a report that summarizes progress developing the ISMN, identifies priorities for the next three to five years, and recommends updates to the ISMN Science and Implementation Plan

Key Partners: NERACOOS

5: Advance mapping and monitoring of coastal vegetation and estimates of blue carbon stores
This project would continue and expand on collaborative work led and funded by EPA Region 1 with NROC over the past 2 years to update and enhance coastal vegetation datasets on the Northeast Ocean Data Portal. The EPA Region 1 project resulted in the formation of an expert work group convened by EPA to review methods and draft data products, updated eelgrass and tidal marsh habitat datasets on the Portal, and the development of the first blue carbon density maps for the northeast region (ME to NY; to be added to the Portal by fall 2022). Several of these work group members have been participating in the NROC-led work group that supported and reviewed the development of coastal vegetation, including submerged aquatic vegetation, datasets on the Portal since 2013. This project would ensure that the work group continues to be engaged and that each of these data products are updated on the Portal with the latest habitat and carbon density data collected in the last few years. It would also result in an analysis of historical change to blue carbon stocks over the last several decades in a pilot location in the northeast with robust data. Finally, a workshop cohosted by NROC and EPA Region 1, with invitations to coastal program managers and coastal vegetation monitoring experts, would be held in coordination with the Integrated Sentinel Monitoring Network (ISMN). Workshop outputs would include the identification of coastal vegetation sentinel sites and documentation of consistent monitoring protocols already being applied in the region such as SeagrassNET. Workshop participants would learn more about the protocols and where new locations may be needed.

Key Partners: EPA, Coastal vegetation expert work group

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

- Organize and host regional workshops and webinars and develop a regional OCA monitoring plan.
- Integrate OCA data into the Northeast Ocean Data Portal and the NERACOOS Ocean Climate Tool to provide spatial and temporal perspectives of ocean acidification and change over time.
- Establish a challenge fund to accelerate implementation of the regional OCA monitoring plan. The Challenge Fund will make funds available to practitioners in coastal states, tribes, and municipalities to put plan components into practice.
- Initiate new monitoring activities, including microhabitat characterization in the rocky intertidal zone and utilizing fishing vessels as ships of opportunity (SOOPs).
- Support the deployment of sensors to measure OCA via commercial fishing vessels and to integrate data collected via these sensors into the NERACOOS Ocean Climate Tool. Notably, this component includes in-kind contributions of time, expertise, and monitoring platforms from the fishing fleet.

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

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

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

Ocean Planning Committee (OPC) Activities

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

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

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

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

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

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

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

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

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

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

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

Proposed activities include:

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

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

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

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

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

Additional funding to implement these recommendations will significantly improve the utility of commercial fishing data on the Portal.

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

- Reorganize data products per industry recommendations to better depict fishing areas, vessel operations, and management for each fishery.

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

Other NROC Activities

12. Other NROC Activities Included in the Proposal

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

Northeast Regional Ocean Council | Summary – May 4, 2022, Virtual Meeting

ATTENDEES

Tom Ballestero, UNH; Walter Barnhardt, USGS; Nicole Bartlett, NOAA; Marcel Belaval, USGS: Rick Bennett, US FWS; Chris Boelke, NOAA; Leann Bullin, BOEM; Todd Burrowes, ME DMR; Todd Callaghan, MA CZM; Alex Carli-Dorsey, US EPA; Jamie Carter, NOAA; Allison Castellan, NOAA; Lou Chiarella, NOAA; Mel Coté, US EPA; Fara Courtney, Outer Harbor Consulting; Steve Couture, NH DES; Mark Cutter, USCG; Thomas Davis, USCG; Kevin Denault, Portland, ME; Jynessa Dutka-Gianelli, UMass; Lisa Engler, MA CZM (NROC State Co-Chair); Claire Enterline, ME Coastal Program; Erfa Fachroni, URI; Caitlin Feehery, NOAA; Marianne Ferguson, NOAA Fisheries; Darryl Francois, BOEM; Wright Frank, BOEM; Melissa Gates, Surfrider Foundation; Brent Greenfield, National Ocean Policy Coalition; Adrianne Harrison, NOAA; Lyndie Hice-Dunton; ROSA; Tricia Hooper, NOAA; Gavin Jackson, CT; Kristal Kallenberg, CT DEEP; Steve Kirk, The Nature Conservancy; Julia Knisel, MA CZM; Jake Kritzer, NERACOOS; Joan LeBlanc, NROC; Kathleen Leyden, ME DMR; Julia Livermore, RI DEM; Rebecca Love, NOAA; Katie Lund, UConn CIRCA; Regina Lyons, US EPA; Daniel Martin, NOAA; Ellen Mecray, NOAA; Meredith Mendelson, ME DMR; Ivy Mlsna, US EPA; Jon Morrison, USGS; Jackie Motyka, NERACOOS; Nick Napoli, NROC; Becca Newhall, NOAA OCM; Betsy Nicholson, NOAA OCM (NROC Federal Co-Chair); Kevin O'Brien, CT DEEP; Larry Oliver, US ACE; Tricia Perez, DOE; Adam Reilly, US EPA; Ed Reiner, US EPA; Mark Rousseau, MA DMF; Dan Sampson, MA CZM; Aybala Sen, Business Network for Offshore Wind; Emily Shumchenia, NROC; Alice Stratton, NOAA; Brian Thompson, CT DEEP; Timothy Timmermann, US EPA; Amy Trice, Ocean Conservancy; Prassede Vella, MA CZM; Jeffrey Waldner, BOEM; Larry Ward, UNH; Chris Williams, NH Coastal Program; Jeff Willis, RI CRMC; Harry Yamalis, CT DEEP

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 activities. NOAA grants have supported recently completed projects of the Coastal Hazards Resilience Committee and the Ocean and Coastal Ecosystem Health Committee. Ocean Planning Committee activities have recently received funding from EPA, BOEM, Moore Foundation, NOAA, MA Clean Energy Center, and the Maine Governor's Energy Office. Detailed funding amounts, project descriptions and funding periods are included in the meeting packet at: https://www.northeastoceancouncil.org/library/.

NROC Staffing Update

NROC has appointed Nick Napoli as its first Executive Director to lead the development of organizational goals and priorities and the implementation of priorities in close collaboration with NROC's Executive Committee, NROC Committees, and staff.

FEDERAL FUNDING OPPORTUNITIES AND UPDATES

Betsy Nicholson provided the following updates regarding federal funding opportunities, announcements, and congressional priorities.

Infrastructure Investment and Jobs Act– across five years

NOAA

- Regional Ocean Partnerships and data sharing– $56 million with 10% set aside for tribes
- Habitat Restoration, Conservation and Acquisition (many NROC partners are expected to apply for these funds)
    - Coastal Zone Management Grants – $207 million
    - Research Reserve System – $77 million for restoration and acquisition
    - National Coastal Resilience Fund – $492 million
    - Community-Based Restoration Grants --$491 million
    - Fish Passage --$400 million with 15% for tribes
- NOAA Mapping, Observations, and Modeling – $492 million
- Tribal Climate Resilience – $216 million

EPA (*Emphasis on disadvantaged communities, climate change and resilience)*

- National Estuary Programs -- $900K per NEP/year
- Long Island Sound Study --$106 million over 5 years
- Southeast New England Program -- $15 million over 5 years

Emergency Coastal Resilience Fund

- Awards will be announced in weeks to come for both CT and RI

USCG Port Access Route Study

The study will evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to Maine, New Hampshire and Massachusetts, and international and domestic transit areas in the First Coast Guard District area of responsibility. 45-day public comment period ends May 16. Contact LTJG Thomas Davis with questions at 617-223-9632 or *SMB-D1Boston-MNMPARS@uscg.mil*

Topical Legislation of Interest

- Regional Ocean Partnership Authorization bill (no update yet)
- Living Shorelines Act
- Reinvesting in Shoreline Economies and Ecosystems Act of 2021
- National Ocean Exploration Act (includes ROPs)
- Sustaining America's Fisheries for the Future Act (includes working waterfronts)
- Coastal Fellowships Act of 2021

KEY STATE PARTNER UPDATES

Lisa Engler shared the following updates on behalf of NROC state partners.

Maine

- Developing multi-year research plan for proposed offshore wind floating research array
- Developing Maine-focused online portal to inform Maine Offshore Wind Roadmap
- Sentinel site monitoring expanded to include vegetation monitoring and elevation change at 11 sites
- Maine Blue Carbon Network formed to advance research on coastal habitat carbon sequestration
- Living shorelines: Living Shoreline Decision Support Tool; USACE ME General Permit; NFWF grant
- Adaptation: Community Resilience Partnership; Legislation supporting analysis of SLR impacts and community support; establishment of Maine Infrastructure Adaptation Fund ($20m)

New Hampshire
- Completed Seacoast Transportation Corridor Vulnerability Assessment to identify roadways at greatest risk of flooding with Rockingham Planning Commission and UNH
- Critical Flood Risk Infrastructure Grant Program (ARPA funded) to support flood resilience and stormwater management projects in coastal watershed ($22m ask; $4.5m available)
- Legislative Commission to Study Offshore Wind and Port Development

Massachusetts
- 2021 MA Ocean Management Plan released (December 2021)
- Initiated update of 2018 State Hazard Mitigation and Climate Adaptation Plan
- Resilient Salt Marsh Priorities Research Needs document in partnership with MA ECAN
- Released RFRs for FY22 Coastal Resilience Grant and Coastal Pollutant Remediation Grant Programs
- OSW: Selected next two OSW projects totaling 1600 MW (total procured: 3200 MW); Ongoing review of proposed projects in MA/RI WEA

Connecticut
- CT National Estuarine Research Reserve designated (Jan. 2022)
- Two Living Shoreline projects in New Haven Harbor ($8m in state funding) proceeding
- Executive Order 21-3 implements 23 actions to address climate mitigation and resilience
    - Develop guidance for state agencies on nature-based solutions, stormwater management, marsh migration
    - Establish Connecticut Community Climate Resilience grant program ($30M) for climate resilience

Rhode Island
- Act on Climate (2021) interpreted by Attorney General to mandate climate emission reductions/standards for projects
- Public Access: Final report *Special Legislative Commission To Study And Provide Recommendations On The Issues Relating To Lateral Access Along The Rhode Island Shoreline*; CRMC designation of ROWs, public hearings/webinars meetings/materials/outreach with RISG and other partners
- OSW: Ongoing review of Revolution Wind, Sunrise Wind, Mayflower Wind

Regional
- BOEM Intergovernmental Task Force on Offshore Wind
- BOEM development of Guidance for Fisheries Mitigation
- NOAA OCM funded Seascape project
- NROC Regional Living Shoreline project

NROC PARTNER UPDATES AND OPPORTUNITIES FOR COLLABORATION

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

Regional research and extension

- 2022-2023 Offshore Renewable Energy Partnership with DOE and NEFSC. Six community-focused ocean renewable energy research projects will be funded (announcement pending). Regional and national Sea Grant Extension network was engaged from the outset.
- 2021 – 2023 American Lobster Initiative funded the following research projects.
    - PI: Damian Brady - UMaine: An ecosystem-based approach to American lobster habitat and trophic dynamics: Integrated modeling to evaluate climate-related impacts
    - PI: Rebecca Peters – ME Department of Marine Resources: Answering an industry question, "Who's eating juvenile lobsters?": An evaluation of lobster predation in the Gulf of Maine using stomach content analysis
    - PI: Jason Goldstein - Wells National Estuarine Research Reserve: Connecting the dots': Environmental drivers of egg production and stability in ovigerous American lobsters in the Gulf of Maine
    - PI: Yong Chen - Stony Brook University: Evaluating impacts of changing life history parameters on the American lobster stock dynamics under different management regulations in a warming Northeastern US
    - PI: Jonathan Grabowski - Northeastern University: Investigating the ecological impacts of range-expanding species to the American lobster fishery using collaborative surveys, fisher observations, and predator-prey experiments
    - PI: Joshua Carloni - NH Fish and Game: The influence of season and temperature on the distribution and abundance of juvenile lobsters assessed via traditional ventless and novel early benthic phase traps

Sea Grant Biennial Research Funding

Recent and imminent announcements expected for 40+, two-year projects.

- RI: https://seagrant.gso.uri.edu/rhode-island-sea-grant-invests-over-2-million-in-research-on-harmful-algal-blooms-rust-tides-and-multi-use-of-marine-resources/
- NY: https://nyseagrant.org/articles/t/1-4-million-awarded-for-sea-grant-research-on-ny-s-coastal-environment-economies-and-communities-research-press-release
- CT: https://seagrant.uconn.edu/research/
- WHOI: https://seagrant.whoi.edu/funding-2/all-funded-projects/
- NH: https://seagrant.unh.edu/research/current-research
- Lake Champlain: https://www.uvm.edu/seagrant/research/current-projects
- ME: https://seagrant.umaine.edu/2022/04/01/research-on-forever-chemicals-carbon-emissions-ecosystem-based-management-and-fisheries-adaptation/
- MIT: Announcements coming shortly!

Other Regional Contributions

Regional Aquaculture

- Seaweed Hub https://seaweedhub.org/
- *Vibrio research and extension*
- Striper Hub
- Southern New England Shellfish Hub
- East Coast Hard Clam Selective Breeding Hub https://storymaps.arcgis.com/stories/3425623358164278bbe1ed7f7311a605

Contaminants of Emerging Concern Project

- https://seagrant.uconn.edu/research/contaminants-emergingconcern/#

New funding

- Marine Debris (Infrastructure Bill - $50M over 5 years). Learning more about Gulf of Maine Marine Debris Action Plan now and waiting for details about funding.
- Coastal Resilience (added to base funding of all programs – roughly $65 / year + match)
    - Builds off internal and partner discussion about needs and opportunities
    - Will include many NROC partners
    - Will emphasis DEIJ implications and issues
- Currently identifying next regional research / extension projects – ideas welcome

NERACOOS

Jake Kritzer provided the following updates regarding NERACOOS activities and projects.

Funding Updates

- IIJA Bill includes $150 million dedicated to ocean observing (not IOOS specifically). Anticipate that IOOS will receive a portion of funds but details pending. Funds will likely go to upgrading existing systems.
- NERACOOS has been discussing potential opportunities to partner on initiatives funded by some of the other federal sources of funding – NEP, NEERS, NOAA etc.
- Federal funding for IOOS in the FY22 Budget included only a $500,000 increase from $40.5 million to $41 million.

Activity Highlights

- With support from MA DEP, NERACOOS runs a NOAA port system around Cape Cod that includes wave buoy, current profiler (recently fixed). Will be adding a new wave buoy to Buzzards Bay.
- Partners at Maine Center for Coastal Fisheries and Passamaquoddy tribes on both sides of the border recently installed a water quality station in the lower St. Croix River.
- As part of the first year for NERACOOS 5-year award, new HAB funding was used by WHOI to buy a SeaTrac vessel to carry IFCB. Funding likely to continue for deployment in year two along with nutrient tracking.
- OA Thresholds project just completed a report about how stakeholders can utilize the model. Report outcomes will be highlighted in an upcoming NECAN webinar and will inform development of a regional monitoring plan.
- Later this summer, a new NERACOOS strategic plan will be finalized. Will be shared once available.

New England Federal Partners

Rick Bennett, US Fish and Wildlife Service provided the following updates on behalf of the New England Federal Partners (NEFP).

- NEFP held a Climate Summit focused on tribal lands. Follow up activities will include expanded focus on climate action, vulnerability, and resilience planning with tribes.
- NEFP discussed potential opportunities for hosting climate training for New England emergency managers next fall.
- CEQ Climate and Economic Justice Screening Tool (CEJST) has a beta version online now. NEFP discussed differences between this tool and EPA's EJ Screening Tool. The CEJST looks at disadvantaged communities that have been historically marginalized in relation to pollution while

the EJ Screen is used for assessment, evaluation, and screening of environmental vulnerabilities. Both tools will be very useful.

- Talked with HUD about community planning and resilience to help determine how to incorporate climate resilience into grants.
- NEFP's work group on nature-based infrastructure habitat (co-chaired by Rick Bennett, USFW and Larry Oliver, USACE) has been focusing on promoting beneficial reuse for dredging materials for habitat restoration. Looking at challenges and opportunities.
- USACE provided a presentation on the Institute for Water Research.
- NFWF is preparing to put $400 million out in ecosystem restoration grants – primarily focused on America the Beautiful, 30x30 initiative.

Gulf of Maine Council

Prassede Vella provided the following updates on behalf of the Gulf of Maine Council.

Regional Collaboration to Address Marine Debris in the Gulf of Maine

The Gulf of Maine Association has been working in partnership with NOAA, Gulf of Maine Council, Urban Harbors Institute, Surfrider Foundation, Center for Coastal Studies, Blue Ocean Society for the Marine Environment, Huntsman Marine Science Centre and the five jurisdictions bordering the Gulf of Maine to implement an international collaborative approach for addressing marine debris in the Gulf of Maine watershed. 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 received $367,839 from NOAA and is expected to leverage an additional $448,153 in non-federal matching support.

Since launching the program in October 2021, partners have implemented over 100 coastal cleanups, removed 7,773.5 lbs. of debris from the environment, conducted detailed marine debris tracking, hosted a variety of outreach and awareness programs, and pursued innovative initiatives that engaged volunteers, businesses, government agencies, students, industry, and community partners in addressing marine debris throughout the Gulf of Maine. During December 2021, the team participated in an international forum with government and non-governmental partners from US and Canada to share information about the project and identify opportunities for new collaborative efforts. Click here to view the presentations from the meeting. Team members also participated in a workshop this spring along with NOAA and other organizations from throughout the region to review and update NOAA's 2019 Gulf of Maine Marine Debris Action Plan.

Earlier this year, this unique regional collaborative enabled a coordinated regional response to an unexpected marine debris event that impacted coastlines throughout the Gulf of Maine during the winter and spring. As unusual yellow plastic tubing began showing up on beaches across the coastline from Massachusetts to Nova Scotia, the Center for Coastal Studies conducted research to identify the source of debris and coordinated team efforts to identify and track this event. The source of debris was identified as yellow explosive shock tubing used as part of blasting associated with harbor dredging projects. This Gulf of Maine regional collaborative proved invaluable in mobilizing quick communications and coordinated field work across multiple states. As a result, regional tracking helped raise awareness about the scope and extent of this source of plastic debris which the US Army Corps of Engineers is now aware of and working to address. Click here for media coverage.

Additional information about the project is available at: https://www.gulfofmaine.org/public/marine-debris/, or on Twitter.

Gulf of Maine Council July 2022 Meeting and 2022 Awards Program

The Gulf of Maine Council will host an in-person meeting in Portland, Maine on July 28 and 29, 2022. The meeting details and agenda are currently under development. On the evening of Thursday, July 28, the Council will host an awards ceremony to honor individuals, businesses and organizations that have made a significant difference in protecting the health and sustainability of the Gulf of Maine watershed. Gulf of Maine Council partners and members of the public are encouraged to submit nominations for 2022 award winners making a difference Nova Scotia, New Brunswick, Maine, New Hampshire, and Massachusetts. Details about the award categories and award nomination forms are available on the Gulf of Maine Council's website at: GOMC Awards Program.

NOAA Office for Coastal Management Updates

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

Big News! CT DEEP, UCONN and NOAA Designate 30th NERR in the System

The CT National Estuarine Research Reserve was officially designated on January 14, 2022. The CT Reserve welcomed Jamie Vaudrey, who was instrumental in the designation of the Reserve, as the Research Coordinator and George McManus as the Reserve Director and Manager. The Hiring Committee received approval to begin searching for additional core staff, including an Administrative Assistant and Education Coordinator. The ceremony to celebrate the designation of the Reserve is set for May 21, 2022 at University of Connecticut, Avery Point Campus. CEQ Chair Mallory, NOAA Administrator Dr. Rick Spinrad, NOS AA Nicole LeBoeuf, and CT Governor Lamont are just a few who are traveling to attend.

NERRs Hosts Local Gathering of the Social Coast Forum: Fostering Social Resilience and Climate Adaptation in New England

On March 24th, more than 100 coastal managers gathered for a chance to talk with other professionals about the **connections between social resilience and climate adaptation**, and what this means for our work in New England. Live presentations included:

- *Making Space for Socially Just Climate Adaptation.* Dr. Ashcraft (University of New Hampshire) shared recent research on what socially just adaptation means and how we can evaluate the potential effects of climate adaptation efforts for socially vulnerable groups. See their recent paper here.
- *Collaboration to Increase Social Resilience in Midcoast Maine.* This emergency response tabletop exercise used the Social Vulnerability Index to identify people who were in harm's way during a coastal storm and how best to include vulnerable populations in planning and emergency response. See project webpage here.

These live presentations were supplemented with **previously recorded presentations**, including:

- *Photovoice: A Participatory Approach to Exploring the Social Dimensions of Climate Change* (Video Link), Jessica Brunacini, Wells NERRS
- *Collaboration to Increase Social Resilience in Midcoast Maine* (Video Link), Kristen Grant, Maine Sea Grant

The local dialogue was hosted by the Wells (Maine), Great Bay (New Hampshire), Waquoit Bay (Massachusetts) and Narragansett Bay (Rhode Island) National Estuarine Research Reserves; NOAA Office for Coastal Management; and the National Estuarine Research Reserve Association.

Product Updates

Sea Level Rise Viewer. NOAA joined with other interagency collaborators to release the *Sea Level Rise Technical Report*, providing the most up-to-date sea level rise projections available for all U.S. states and

territories. The updated data offer projections out to the year 2150 and information to help communities and decision makers. These projections fill in the gaps for some rural and underserved regions. NOAA Office for Coastal Management teams have been hard at work incorporating the data into our *Sea Level Rise Viewer*, *Coastal County Snapshots*, and the *Stormwater Adaptation Tool*.
NOAA Office for Coastal Management partnered with the Bureau of Labor Statistics to release the Employment in Coastal Inundation Zones dataset in April. The dataset is foundational in describing the potential impact of flooding on a community's economy and includes the number of business establishments and the number of employees that fall within various coastal inundation footprints. The data can be used by city planners, state governments, nonprofits, private sector, and federal government agencies to examine potential business and employment disruptions from storm surge and other flooding.

Training Opportunities
Seven Best Practices for Risk Communication. This 90-minute interactive training introduces participants to seven best practices, numerous techniques, and examples for communicating about hazards.

- June 7, 2022, 2:00 to 3:30 p.m. (Eastern). Register here.

Working with Lidar. The self-guided training just added the second module: Identify Lidar-Derived Products. You will learn to quickly determine which lidar data products are needed for your project—and easily locate lidar data. See typical projects and the lidar products needed for your region.
Using Conceptual Models to Integrate Ecosystem Services into Your Coastal Projects – *Coming in Spring 2022.* This new training walks participants through the steps involved in creating a conceptual model of a planned intervention and how it results in biophysical and human changes. This approach allows participants to visualize how the intervention ripples through the natural and human systems and results in changes to ecosystem services. This is a companion course to A Framework for Ecosystem Services Projects. For more information, contact *Peter.Wiley@noaa.gov* or *Rebecca.love@noaa.gov*

Technical Assistance
OCM Science and Geospatial Division staff are assisting Massachusetts DEP in their next round of eelgrass mapping. Sections of coast from Provincetown to Plymouth will be mapped and new imagery will be collected along the coast from Plymouth to New Hampshire. This work will be conducted through OCM's Coastal and Geospatial Services Contract. This year's work also includes a pilot test of semi-automated methods for seagrass mapping.

Fellow News
New Coastal Management Fellows are currently being selected for the coastal programs in Massachusetts and New Hampshire at the fellowship matching workshop, and will be announced in early May. Davidson Fellowship News - The latest issue features Davidson Fellow, Claudia Mazur who is finishing up her fellowship in Waquoit Bay Reserve in Massachusetts. Claudia spearheaded a series of workshops, titled Step Into STEM, to encourage and mentor students who are the first in their families to attend college. The workshops are part of the NOAA for Minority Student STEM Initiative and were supported by funding from NOAA's North Atlantic Regional Collaboration Team. In addition, this issue shares an accolade for Jessica Brunacini (Wells Reserve in Maine) who attended the Story Collider's Estuary Storytelling virtual workshop.

Events

- CZM and NERRs Program Managers Meeting, May 17-19, 2022, in Washington D.C.
- National Working Waterfront Network Conference, July 19-21, 2022, in Boston, sponsored by Massachusetts Coastal Zone Management and the University of Massachusetts Urban Harbors Institute. An NROC panel was accepted featuring our ME, MA, RI and CT state NROC members and will

focus on "Positioning large and small working waterfronts to meet current challenges through the eyes of Coastal Zone Management leadership in New England. What's needed, what will work, and what are the biggest challenges and opportunities to increasing pressures on working waterfronts in this region."

Gulf of Maine Seascape

NOAA has worked hand in hand with Gulf of Maine state coastal management partners and Tetra Tech over the last three years to develop the Gulf of Maine Seascape mapping project. The Gulf of Maine is experiencing an increase in demand for ocean-related projects. To help people make the best decisions possible when it comes to this important natural resource, NOAA's Office for Coastal Management funded and coordinated the development of a mapping product that can help inform the planning process. The seascape map was developed using the seamless BlueTopo data from NOAA's Office of Coast Survey, a compilation of existing bathymetric surveys. Together, these map products show how interrelating seafloor components and habitat areas across the region are distributed.

This map of the seafloor will provide a regional view of the Gulf of Maine from the highest annual tide on the coast out to 24 nautical miles. The Coastal and Marine Ecological Classification Standard and a consistent mapping approach were used, along with the best-quality data available to identify different bottom types, such as rocky areas, shoals, and moraines. This mapping product covers Maine, New Hampshire, and Massachusetts. This new product is scheduled to be released in *Spring 2022*. Partners in Southern New England are interested in expanding this new mapping tool to cover their area. For more information, contact *Mark.Finkbeiner@noaa.gov* or *Rebecca.Newhall@noaa.gov*.

Bureau of Ocean Energy Management (BOEM) Updates

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

Gulf of Maine Intergovernmental Renewable Energy Task Force Meeting

Release date: 04/12/2022 Contact: Tracey Moriarty, (703) 787-1571 Washington, DC

Dear Stakeholder:

The Bureau of Ocean Energy Management (BOEM) would like to invite you to a Gulf of Maine Intergovernmental Renewable Energy Task Force meeting on May 19, 2022, from 9 a.m. to 5 p.m. (EDT). The meeting will take place virtually via Zoom. To register for the meeting, please click here.

This task force is an intergovernmental group composed of federal officials and elected tribal, state and local officials from Maine, New Hampshire and Massachusetts. The upcoming task force meeting will focus on the following topics:

- Planning process for commercial wind energy leasing in federal waters of the Gulf of Maine
- State and federal perspectives on offshore wind in the Gulf of Maine
- Framework approach for the first step in the commercial planning process: a Request for Interest
- Stakeholder engagement approach for the commercial planning process
- State of Maine's research lease application

The public is encouraged to attend this meeting, which will include an opportunity for public input on the topics identified above. Additional details are available on BOEM's Gulf of Maine web page.

BOEM Report: Atlantic Science Year in Review 2021

The Bureau of Ocean Energy Management (BOEM) funds environmental studies for information needed to predict, assess, and manage impacts from offshore energy and marine mineral activities on human, marine, and coastal environments as mandated under Section 20 of the Outer Continental Shelf Lands Act. This year in review presents the studies completed in 2021 in support of BOEM's Offshore Renewable Energy Program along the Atlantic coast. The studies represent a broad spectrum of research and monitoring to address a variety of environmental concerns and issues. This review represents a snapshot of the ongoing and completed studies funded in whole or in part by BOEM. To learn more about other studies, please visit the BOEM website at www.boem.gov. The report is available for download here: *https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Atlantic-Year-in-Review-2021-v4.pdf*

Multi-Agency Approach to Enhance Protection for North Atlantic Right Whales

BOEM Announces Multi-Agency Approach to Enhance Existing Protection Efforts for Endangered North Atlantic Right Whales

Release Date: 02/07/2022 Contact: Sara McPherson, (202) 341-9827

WASHINGTON – Building on existing initiatives to study and assess impacts of offshore wind energy development on the North Atlantic right whale, the Bureau of Ocean Energy Management (BOEM) is fostering multiple federal and state partnerships that will inform and strengthen protections for this endangered species.

For more than a decade, BOEM has funded independent research studies and formed partnerships to better assess potential offshore wind energy development impacts on protected species. These studies collect broadscale baseline distribution, behavioral, and ecological data on protected species in general, as well as on North Atlantic right whales.

As offshore wind energy development expands in the Atlantic, BOEM is engaging with the National Oceanic and Atmospheric Administration (NOAA) to develop a science and management strategy to protect and promote the recovery of North Atlantic right whales while responsibly developing offshore wind energy. The strategy will identify existing and needed collaborative research, mitigation requirements and regional-scale monitoring to help minimize impacts to this critically endangered species. BOEM expects to provide a draft strategy later this year for stakeholder input.

BOEM and NOAA are also working with partners to develop a regional passive acoustic monitoring (PAM) network to identify the larger scale movements and distribution of marine mammals, including the North Atlantic right whale. In addition, real-time PAM systems will be deployed to detect animals in the vicinity of construction operations and prompt site-specific mitigation measures designed to reduce the impacts of offshore wind energy projects on marine species.

BOEM is also working with NOAA Fisheries on a Federal Survey Mitigation Implementation Strategy that will describe steps to limit the impact of offshore wind energy development on NOAA Fisheries survey activities including those for North Atlantic right whales.

These efforts align with the recent interagency memorandum between BOEM and NOAA that will leverage the responsibilities, expertise and relationships of both agencies in support of the Biden-Harris administration's offshore wind energy goals while protecting biodiversity and promoting cooperative ocean use.

"BOEM is deeply committed to ensuring responsible offshore wind energy development and to protecting marine species, like the North Atlantic right whale. Continued collaboration with our federal and non-federal partners is essential to our success in both endeavors," said BOEM Director Amanda Lefton. "These partnerships embody the Biden-Harris administration's commitment to confronting the climate crisis and sustaining our oceans for future generations."

BOEM is also collaborating on several other research initiatives related to the North Atlantic right whale and offshore wind energy development. For more than seven years, BOEM has partnered with the Massachusetts Clean Energy Center (MassCEC) on right whale aerial surveys around and within the designated Wind Energy Areas offshore Massachusetts and Rhode Island.

In response to stakeholder requests, BOEM, MassCEC, and other state, federal and private funders recently agreed to help fund one additional year of targeted aerial surveys to augment the existing survey series. Throughout 2022, when researchers observe groupings of North Atlantic right whales during aerial surveys, they will also conduct separate focused and directed surveys on the identified aggregations to improve BOEM's understanding of the whales' behavior.

The funding extension will allow time for regional partnerships to address this long-term data need and reinforces BOEM's commitment to collaborate with the Regional Wildlife Science Collaborative to determine the best path forward for North Atlantic right whale research.

This current survey effort includes funding from the Connecticut Department of Energy and Environmental Protection and the Maine Community Foundation. Discussions are ongoing for further funding from the New York State Energy Research and Development Authority. State funding for the surveys has been facilitated by the Regional Wildlife Science Collaborative.

2022 Mid-Atlantic Ocean Forum

The Mid-Atlantic Committee on the Ocean (MACO) will convene its fourth annual Mid-Atlantic Ocean Forum on May 5 and 6. The Forum gathers hundreds of ocean professionals and stakeholders representing federal and state agencies, Tribal entities, marine industries, nonprofit research and advocacy organizations, and the public. The free event will once again be held virtually. Instructions for joining the Forum via Zoom will be provided upon registration. Links to registration, detailed program agenda, information about poster sessions and more are available at: https://www.midatlanticocean.org/mid-atlantic-ocean-forum/2022-mid-atlantic-ocean-forum/. A PDF version of the agenda is available here: https://www.midatlanticocean.org/wp-content/uploads/2022/04/agenda_4-27-22.pdf. Questions about the forum may be directed to Judy Tucker at info@midatlanticocean.org.

NATIONAL UPDATE FROM WHITE HOUSE OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Deerin Babb-Brott, Assistant Director for the White House Office of Science and Technology Policy provided an update on the national Ocean Policy Committee's priority areas of focus which are to: 1) support regional coastal and ocean management, 2) develop ocean-climate solutions to mitigate for and adapt to climate change, 3) connect investment in and application of applied ocean science and technology to management needs, and 4) advance sustainable ocean economies. A new website was recently launched to increase transparency and highlight the Ocean Policy Committee's work, available at www.whitehouse.gov/ostp, and www.ostp.gov. Feedback welcome.

Support for Regions

- Focus on support for regions increasingly reflected in policy and budgets
- Ocean Policy Committee (OPC) authorizing legislation directs engagement and support for regions

- Immediate example is $56m/5 years in the IIJA – recognizes value of ROPs
- OPC will build on NE, Mid-Atlantic, and other sources for lessons learned and engagement practices and data portals as national models

Develop Ocean Climate Solutions

- Green shipping, blue carbon, and ocean renewables provide significant potential emissions reductions
- Other actions ongoing or under development provide adaptation benefits (coastal resilience, fisheries, other)
- OPC will coordinate development of ocean-climate action plan that builds on agency actions and timelines

Applied Ocean Science and Technology

- Focus on "use-inspired" S&T as opportunity to advance regional management (wind/resource interactions, for ex)
- Strong support for agency engagement and private sector/regional partnerships in National Oceanographic Partnership Program (NOPP)
- Connect regionally identified needs with agency investment in NOPP projects: focus on communicating regional S&T priorities to OPC

National Strategy for a Sustainable Ocean Economy

- In November, U.S. joined the High-Level Panel for a Sustainable Ocean Economy – international collaboration among 15 nations focused on sustainably managing marine areas oceanpanel.org.
- Key commitment is to develop a plan to sustainably manage the U.S. Exclusive Economic Zone
- To guide the plan, OPC will consult with Tribes, and collaborate with ocean stakeholders and key regional entities – ROPs, FMCs, R/As, others – to develop a National Strategy in 2022
- Implementation planning expected to begin in 2023
- OPC will solicit comment and engage this spring/summer in regional conversations to help scope the approach that advances regional interests
- Actions the U.S. are taking and/or will take towards achieving a sustainable ocean economy – advancing regional interests is a key component
- 'Sustainable ocean economy' described by themes of ocean health, wealth, knowledge, equity, and finance, and associated outcomes:
    - ***Sustainable Ocean Energy:*** Ocean-based renewable energy is fast-growing and on the path to becoming a leading source of energy for the world.
    - ***Sustainable New Ocean Industries:*** Innovation and investments in new ocean industries have boosted environmentally responsible and inclusive economic growth.
    - ***Protect and Restore Marine and Coastal Ecosystems:*** Marine and coastal ecosystems are healthy, resilient and productive, and nature-based solutions are key elements in developing coastal infrastructure.

Use the National Strategy to Advance Regional Interests

- This is an opportunity for NROC to advance its priorities and interests and help define national agenda.
- What are the key issues associated with NROC's vision of a sustainable ocean economy, what does NROC want to accomplish, and what does it need to do so?

- Don't need a grand regional 'sustainable ocean economy' visioning exercise: regions and regional entities already define the terms through their priorities and actions
- NROC can leverage its ocean and coastal management experience, priorities, and current workplans and use the National Strategy to highlight and drive needed action to help accomplish its objectives

Key Discussion Points

- In terms of engagement / outreach with states, the national strategy is part of the same process linked to developing priority projects for iIJA. OPC is committed to developing a national strategy that builds on the ongoing movement toward supporting priorities and needs on a regional basis, encompassing engagement with states.
- To be prepared for upcoming outreach opportunities that will inform the national strategy, NROC should continue with ongoing efforts to develop committee work plans and priority projects. The national Ocean Planning Committee will conduct targeted outreach and engagement with regions over the summer by reaching out to existing networks such as NROC. A more formal engagement process is also under development. The concept is to take advantage of regional knowledge and priorities vs. starting from scratch.

GULF OF MAINE INTERGOVERNMENTAL RENEWABLE ENERGY TASK FORCE MEETING

- Wright Frank of BOEM provided an update regarding plans for the upcoming virtual meeting of the task force scheduled for May 19, 2022. Last October, Secretary of Interior Deb Haaland announced an offshore wind leasing strategy for 2021 through 2025, including the goal of holding an offshore wind lease for the Gulf of Maine in 2024. The May 2022 Task Force meeting will focus on the commercial lease planning process, state and federal perspectives on offshore wind in the Gulf of Maine, the framework approach beginning with a Request for Interest, stakeholder engagement, and processing Maine's research lease application. Members of the public are welcome to attend. Details about the meeting and task force are available at: https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine.
- Nick Napoli provided an overview of opportunities for NROC's Ocean Planning Committee and Northeast Ocean Data Portal to support the Task Force process. NROC is working with the Maine Governor's Energy Office to review and develop data to inform Maine's Offshore Wind Road Map. NROC is creating a new data portal focused on the Gulf of Maine region in association with the Northeast Ocean Data Portal. NROC is currently reviewing and developing data on fisheries and wildlife to identify gaps and needs. Stakeholders will provide feedback regarding the data in Maine through June. NROC hopes to expand the project beyond Maine to other states in the future and has included this initiative as a priority project for potential IIJA funding. Lisa Engler noted that NROC must ensure that the Northeast Ocean Data Portal continues to expand to support the most relevant planning issues such as offshore wind.

NROC COMMITTEE UPDATES AND PRIORITY PROJECTS FOR FUNDING

Nick Napoli provided an overview of the process that NROC's used to identify priority projects for potential IIJA funding for NROC's three primary committees (Coastal Hazards and Resilience, Ocean and Coastal Ecosystem Health, and Ocean Planning).

NROC Process for Project Identification and Prioritization

- Committees developed work plans, including identification of where additional funds could be used (work plans approved October 2021)
- Committees identified priority projects and developed project briefs (March through April 2022)
- Staff worked with Committees to obtain clarifications on budget and project details (April 2022)
- Staff summarized projects for NROC distribution and NROC meeting (late April 2022)
- NROC utilizes May 2022 meeting to obtain partner input on potential projects
- NOAA spending plan will be approved and funding opportunity released (date TBD)
- Staff will submit a budget, including projects, and identify decision points for NROC EC
- Staff will develop proposal in response to NOAA funding opportunity (date TBD)

NROC Committee Co-Chairs were asked to develop project briefs that were consistent with Committee work plans and considered both near term (2 years) and longer-term (3-5 years) objectives and outcomes. IIJA funds are expected to be available for up to five years. Committees were also asked to consider tribal priorities and engagement, consider the impact to and involvement of underserved communities, and identify partners and potential leveraging opportunities.

Context:

- Northeast Ocean Data Portal, Integrated Sentinel Monitoring Network, and Regional Wildlife Science Collaborative (much of NROC's work cuts across committees and initiatives)
- Subcommittees and projects are likely relevant to multiple committees and NROC priorities (e.g., blue carbon, living shorelines)
- Adequate staffing will be needed to provide support, connections, and ensure coordination; many subcommittee priorities may not require subcontracts and will rely on member, staff, and partner coordination.

NROC's three committees identified 11 priority projects for funding (summarized in the following sections). In addition to requests for supporting committee projects, NROC's proposal for IIJA funds will also include:

- *Support for a tribal engagement coordinator*
    - Identify and scope tribal priorities
    - Ensure engagement in each of NROC's committees and projects, if interested
    - Assist with fundraising and proposal development for tribal priorities
    - Could be a person or an organization
- *Contract staff support to ensure capacity for the EC and each Committee*
    - Project management and coordination across committee portfolios
    - Manage and support NROC/committee/project meetings, webinars and workshops
    - Contract development/management
    - Grant and progress reporting
    - Fundraising
    - Communications – website, newsletters, other
    - General administration
- *A budget for general administration*
    - Funding to respond to emerging policy needs
    - IT, website, communications, meeting space, travel and other direct costs

Coastal Hazards Resilience Committee – Committee Updates and Potential Projects
Julia Knisel, MA CZM, Adrianne Harrison, NOAA, and Kevin O'Brien, CT DEEP co-chair the Coastal Hazards Resilience Committee (CHRC). Julia provided an overview of the CHRC's recent activities and potential projects for IIJA funding.

CHRC Project Update
In the meeting briefing packet, CHRC Committee highlighted the following products from the recently completed NROC / TNC Project, *Increasing Resilience and Reducing Risk Through Successful Application of Nature Based Coastal Infrastructure Practices in New England.* This project was funded by the NOAA, FY2017 Coastal Resilience Grant Federal Funding Opportunity Award Number: NA17NOS4730141, with support from project partners. Project period: October 2017 to March 2022.

- Piloting Living Shorelines in New England: Overview of regional partnership led by The Nature Conservancy with the NROC, state Coastal Zone Management programs and local organizations to advance appropriately designed living shorelines in New England.
- Regulatory Challenges and Opportunities for Living Shorelines in New England: Report highlights key regulatory challenges and opportunities to better support the application of living shorelines in New England.
- Living Shorelines in New England: Site Characterization and Performance Monitoring Guidance: Report provides guidance to inform site characterization and performance monitoring for Living Shorelines in New England. Metrics and data collection tools for different types of living shorelines to advance knowledge about performance of these approaches in New England.
- Case Studies: Living Shorelines in New England
  Case studies provide an in-depth look at five living shoreline demonstration projects developed to advance knowledge and understanding about permitting, design, construction, and monitoring of living shorelines in New England.

These products are available on the NROC website at:
https://www.northeastoceancouncil.org/committees/coastal-hazards-resilience/living-shorelines-group/

CHRC Potential Projects for IIJA Funding

1. ***Establish a water level sensor community of practice in New England***
   - Need:
     - More localized, real-time water level data to monitor storm surges and sea level rise
     - Inform storm awareness/response, coastal inundation modeling and planning
   - Tasks:
     - Host a two-day workshop including a showcase of sensors/networks and regional discussion on sensor requirements and data management
     - Develop a brief fact sheet on sensor types and deployment tips
     - Purchase and deploy a variety of sensors across the region for testing of performance over water and land, data transfer and data quality
   - Outcomes:
     - Increased awareness of cost-effective sensors that are suitable for New England conditions (e.g., tides, weather, coastal development, etc.)
     - Guidance on selection and deployment of sensors
     - Establishment of a pilot sensor network across the region

- Possible Partners: NERACOOS, NOAA and USGS
- Outreach: workshop fact sheet and findings from pilot deployment can be used to develop broader interest in use of low-cost sensors
- Engagement Opportunities: work with tribes and underserved communities to ID sensor placement locations and evaluate data

2. ***Advancing living shorelines in New England - Phase 3***
   - Need: additional research and regional consensus building to expand implementation of effective living shoreline projects
   - Tasks:
     - Support additional monitoring of projects in the region and refinement of monitoring metrics
     - Host a forum with USACE on permitting
     - Host a workshop on climate change and living shoreline projects with a focus on habitat conversion and shoreline stabilization/flood control
   - Outcomes:
     - Baseline set of critical performance monitoring metrics
     - Refined regulatory guidance document
   - Possible Partners: TNC, USACE and USFWS
   - Outreach: disseminate products from NOAA-funded living shoreline projects
   - Engagement Opportunities: work with landowners and engineers/design professionals to increase interest in living shoreline approaches

3. ***Roundtable: Approaches for integrating updated sea level rise projections into planning tools and policies***
   - Need: new/updated sea level rise data/projections, models and visualization tools are ready to be shared
   - Tasks: host a forum on new products and best practices for sea level rise policies and adaptation planning
   - Outcomes: strengthened state and local policies, plans and regulations
   - Possible Partners: NOAA and others
   - Outreach: disseminate forum proceedings widely throughout the region
   - Engagement Opportunities: sponsor tribal and underserved community participants

Feedback / Discussion Points

- This project would dovetail with the recent publication of Global and Regional Sea Level Rise Scenarios for the United States as well as a companion document which will be available soon.
- NMFS has identified the need to embellish the river gauge system throughout New England given increases in storms. Perhaps that effort could be considered for a future project.
- State debriefs highlighting lessons learned from the living shorelines demonstration projects were very informative. Regarding proposed outcomes for project 2, states have noted that there are limits to developing standard regulatory guidance due to varying policies across states, and challenges for developing standard performance metrics due to different project settings and capacity for monitoring.
- USGS utilizes a regional network to accommodate monitoring for storms with numerous locations across the coast of New England - https://www.usgs.gov/mission-areas/water-

resources/science/surge-wave-and-tide-hydrodynamics-swath-network. USGS can provide insights about low-cost sensors and may be able to assist by deploying short-term, real time storm surge sensors. USGS also has a program called 'water alert' – community users can enter information into a system in order to receive alerts under certain conditions.
- For reference, USGS provided this link to a coastal flooding product from 2018. https://www.usgs.gov/centers/new-england-water-science-center/science/flood-documentation-and-inundation-mapping-january
- NERACOOS is well positioned to determine how to pull in various data streams and aggregate them for the region. Demand for on the ground data has greatly increased.
- NH DES recently published a flood frequency analysis for the Hampton Harbor tide gauge. The report provides an example of how to interpret data and make policy recommendations. https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/r-wd-21-15.pdf
- NROC should also focus on considering and developing ways to mitigate the effects of non-living shoreline projects that will certainly come with sea level rise - not just living shorelines.

NROC Ocean and Ecosystem Health Committee (OCEH)

NROC's OCEH Committee is co-chaired by Steve Couture, NH DES, Regina Lyons, EPA, and Jeffrey Runge, NERACOOS. Within OCEH, the Habitat Classification and Ocean Mapping (HCOM) committee is co-chaired by Becca Newhall, NOAA, Dan Sampson, MA CZM, and Todd Callahan, MA CZM. This committee was established to help identify and coordinate regional activities to preserve and restore ecosystem health in New England. Representatives from OCEH and NE Ocean Data Portal Manager Emily Shumchenia provided an overview of proposed projects.

1. *Coastal vegetation and blue carbon data updates to inform long-term monitoring*

Goal: Continue and expand on collaborative work led and funded by EPA Region 1 with NROC over the past 2 years to update and enhance coastal vegetation datasets on the Northeast Ocean Data Portal

Outcomes:
- Regular meetings of the existing work group
- Continued updates to current coastal vegetation and blue carbon layers
- Pilot retrospective analysis of blue carbon change over time
- NROC/EPA/ISMN workshop to identify additional regional sentinel sites and consistent monitoring protocols for coastal vegetation already being applied in the region such as SeagrassNET
- Support for data collection and monitoring at sentinel sites, potentially in collaboration with the states and EPA

2. *Development of a regional system for monitoring ocean and coastal acidification*

Goal: Coordinate and strategically expand ocean and coastal acidification (OCA) monitoring to meet shared goals of the Northeast Coastal Acidification Network (NECAN), Integrated Sentinel Monitoring Network (ISMN), aquaculture and wild shellfish industries, state agencies, and other users.

Outcomes:
- Organize a regional workshop on monitoring techniques, objectives, and applications, building on the NECAN webinar series and connecting with ISMN interests in eelgrass.
- Develop a regional monitoring plan based on the workshop outcomes.
- Integrate OCA data into the Northeast Data Portal and NERACOOS Climatology Tool to provide spatial and temporal perspectives.

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

3. ***Comprehensive Seafloor mapping in a high priority, 3-state ocean planning area of the Gulf of Maine***
    - Resources will also help inform planning for aquaculture and offshore energy sources.
    - This work also supports the recent ME Offshore Wind Initiative Roadmap Environment and Wildlife Subcommittee recommendation #2 https://www.maineoffshorewind.org/working-group-recommendations/environment-wildlife/).

    Partners: NOAA OCM, USGS, Maine, New Hampshire, Massachusetts

4. ***Identification of high priority areas and an acquisition plan for augmenting high-resolution multibeam echosounder bathymetry across the northeast shelf to facilitate derived products (seascapes, slopes, seafloor ruggedness) for use in habitat identification and ocean planning***
    - Geographic area of this project would extend beyond recent Gulf of Maine Seascape

5. ***Identification of high priority areas for seafloor characterization (biological and sediment) within the Gulf of Maine and conduct 1-3 directed seafloor surveys to assist with regional management goals.***
    - This more detailed seafloor characterization would help inform siting of offshore wind structures to avoid negative impacts to marine resource areas such as spawning areas or coral gardens

Feedback / Discussion Points

- CT DEEP and NOAA NCOS have experience identifying resource areas and can share information that may be helpful to the seafloor characterization projects.
- These proposed seafloor mapping initiatives would be extremely beneficial for helping to addressing a critical data gap associated with offshore wind planning.

NROC Ocean Planning Committee (OPC)

NROC's Ocean Planning Committee Co-Chairs are Ted Diers, NH DES, and Lou Chiarella, NOAA. During the meeting, Nick Napoli, NROC and Emily Shumchenia, NROC and Regional Wildlife Science Collaborative (RSWC) provided an update regarding the Ocean Planning Committee's recent activities and an overview of proposed projects.

Ocean Planning Committee Update

Information regarding recent OPC activities and events is available here:

1. *Aquaculture: https://neoceanplanning.org/planning-issues/aquaculture/*
2. *Transmission: https://neoceanplanning.org/planning-issues/offshore-transmission/*
3. *Best Practices for Ocean Permitting and Management: https://neoceanplanning.org/planning-issues/best-practices/*
4. *Northeast Ocean Data Portal: https://www.northeastoceandata.org/news/*
5. *Regional Wildlife Science Collaborative for Offshore Wind: https://neoceanplanning.org/rwse/*

Ocean Planning Committee – Proposed Projects

1. ***Updates and enhancements to Northeast Ocean Data Portal map interfaces, website, data services, and IT infrastructure***

- Many years, significant increases in portal use, and many new website and mapping requirements since the last complete overhaul and redesign in 2015
- Upgrade user mapping and visualization tools and enhance connections to core external data providers
- Improve integration of Portal webpages and contextual information with map interfaces and data products
- Increase the ability for users to view select data products at multiple geographic scales
- Provide ability for place-based or specific management focused tools and analyses

Partners, outreach and engagement

- Data providers and other regional systems – Marine Cadastre, MidA Portal, Duke MGEL, NERACOOS
- Requirements derived from users via agency meetings, sector-based outreach, NE Ocean Data Portal work groups, trainings, and general inquiries

2. ***Update marine life data on the Northeast Ocean Data Portal***

- Among the most used and expensive datasets to maintain; requires additional funding
- Continue annual marine life updates
    - New species groups in response to management needs
    - Updated marine mammal and avian products from models being completed in 2022
    - New sea turtle products
    - Integration of Northeast Regional Habitat Assessment data products (fish/habitat)
    - Project management and coordination with expert work groups, related projects, RWSC Subcommittees, ISMN
- Research and development
    - Maps of model covariates (e.g., oceanographic features, prey fields)
    - Climate change scenarios
    - Joint species modeling
    - Pelagic components of ISMN
    - Migratory connectivity and linkages to basin, coastwide, and international data

Partners, outreach and engagement

- USFWS, NOAA Fisheries, Duke MGEL, NEFMC, MAFMC
- Expert input and review through the NROC marine life work groups
- Coordination with other regional efforts – RWSC, ISMN

3. ***Reorganize and update commercial fishing data on the Northeast Ocean Data Portal***

- Among the most used and expensive datasets to maintain; requires additional funding
- FY19 regional data sharing funded project led to many recommendations about updated and new products and how they are organized
- Reorganize data by fishery – management areas, vessel transit/fishing, communities at sea and landings
- Integrate NOAA fishing footprints and other data products
- Consider new products:
    - Directionality of tow or heading
    - Transit versus fishing areas in VMS
    - Loran-C
    - Socioeconomics

    - Linkages to resource data (trawl, other surveys)
- Ensure coordination with the industry, NMFS, and state fisheries agencies

Partners, outreach and engagement

- NOAA Fisheries, state fishery management agencies, NEFMC, MAFMC
- Industry outreach and input through NEFMC, MAFMC, RODA, and other industry associations

Feedback / Discussion Points

- The scope and quality of work being conducted by the OPC and via the NE Ocean Data Portal is extremely valuable to the region.
- Past data collection on commercial fisheries activity and marine life distribution is coordinated across the Northeast and Mid-Atlantic in terms of data review and expert input on priorities. Fisheries management councils have also provided input and review.

Next Steps for NROC

- NROC will propose budget and decision process to NROC Executive Committee
- NROC Committees welcome meeting participants to provide additional input about the priority projects following the meeting
- NROC is well-positioned to respond to NOAA funding opportunity once it is released
- NROC's next full meeting will take place during the fall – NROC leadership will transition from Massachusetts and NOAA to Rhode Island and USFWS at the next meeting

NROC meeting adjourned at approximately 12:00 PM

Meeting summary prepared by Joan LeBlanc, NROC Coordinator

Briefing Packet and presentations are available under Council Meeting Materials at:
https://www.northeastoceancouncil.org/library/