



NROC Meeting
Thursday, November 30, 2023
8:30 AM – 4:00 PM

AC Hotel
299 Vaughan Street, Portsmouth, NH 03801

Briefing Book

Table of Contents

Table of Contents	2
Participant Agenda	3
Virtual Access Information	5
Briefing Materials	6
**Potential Projects for Infrastructure Investment and Jobs Act (IIJA) funding from 2025 through 2027	6
NROC Executive Committee Update	18
NROC Executive Committee – NROC Funding Status Update	18
NROC / NERACOOS Water Level Sensor Monitoring in New England (2024)	20
Ocean and Coastal Ecosystem Health Committee Recommendation for Current Use of Funds (2024)	21
Updates from NROC Partners	22
Offshore Wind Updates from Bureau of Ocean Energy Management (BOEM)	22
Gulf of Maine Council on the Marine Environment - November 2023 Update	24
Massachusetts Office of Coastal Zone Management Update	27
NOAA Office for Coastal Management Updates	28
Northeast Sea Grant Consortium Updates	30
Ocean and Ecosystem Health Committee (OCEH) – Activities of the Habitat Classification and Ocean Mapping (HCOM) Subcommittee	32
USACE New England District NROC Update	33
Reference	36
April 2023 NROC Meeting Summary	36

***NROC is looking for your input on the potential projects for future funding section (pp. 6-17). As such, we recommend attendees read through this section and discuss with others in their organization in advance of the meeting, so they will be prepared to provide feedback.*

Participant Agenda

Thursday, November 30, 2023 AC Hotel, 299 Vaughan Street, Portsmouth, NH 03801	
8:00 AM	Breakfast (provided on-site)
8:30 AM	Welcome and Overview of Meeting Agenda <i>NROC Co-Chairs: Jeff Willis, RI Coastal Resources Management Council (RI CRMC); and Rick Bennett, U.S. Fish and Wildlife Service (US FWS)</i>
8:35 AM	Updates from NROC Executive Committee, Federal Partners, and State Partners <i>Jeff Willis, RI CRMC; Rick Bennett, US FWS; and NROC state and federal partners</i>
9:30 AM	NROC Partner Updates and Opportunities for Collaboration <ul style="list-style-type: none"> ● Northeast Sea Grant Consortium, <i>Gayle Zydlewski (pp. 30-31)</i> ● Northeast Regional Association of Coastal and Ocean Observing Systems, <i>Tom Shyka</i> ● Gulf of Maine Council, <i>Prassede Vella, MassBays (pp. 24-26)</i> ● New England Federal Partners, <i>Rick Bennett, US FWS</i>
9:50 AM	Coastal and Ocean Management Priorities from the Tribes <i>Asha Ajmani, Tribal Engagement Coordinator</i>
10:00 AM	Break
10:10 AM	Overview of NROC Activities, Next Steps and Decisions <i>Nick Napoli, Executive Director</i>
10:20 AM	Diversity, Equity, Inclusion and Justice (DEIJ) Work Plan <i>Joan LeBlanc, Coastal Hazards Resilience Program Director; and Asha Ajmani, Tribal Engagement Coordinator</i>
10:40 AM	Coastal Hazards Resilience Committee <i>NROC Co-Chairs: Julia Knisel, MA Office of Coastal Zone Management; Gavin Jackson, CT Department of Energy and Environmental Protection; and Dani Boudreau, NOAA Office of Coastal Management</i> <i>Staff: Joan LeBlanc, Coastal Hazards Resilience Program Director</i> <ul style="list-style-type: none"> ● Living Shorelines Update (with TNC) ● Water Level Monitoring – Update and decisions about deploying sensors (with NERACOOS) (p. 20) ● Overview of 2024-2028 Work Plan and input on future project priorities
12:00 PM	Lunch Break (provided on-site)

12:30 PM	<p>Ocean and Coastal Ecosystem Health Committee <i>NROC Co-Chairs: Steve Couture, NH Department of Environmental Services; and Regina Lyons, Environmental Protection Agency; and Jake Kritzer, Northeastern Regional Association of Coastal Ocean Observing Systems</i> <i>Staff: Amy Trice, Senior Program Director for Ocean Planning and Coastal and Ocean Ecosystem Health</i></p> <ul style="list-style-type: none"> ● Regional Seafloor Mapping Priorities – Update on seafloor mapping prioritization and funding priorities (with the Habitat Classification and Ocean Mapping Subcommittee) ● Ocean Acidification Monitoring – Update on the draft Ocean Acidification Monitoring Plan and decisions about implementation in 2024 (with NERACOOS) (p. 21) ● Blue Carbon – Update and next steps ● Integrated Sentinel Monitoring System – Update and next steps ● Overview of 2024-2028 Work Plan and input on future project priorities
2:15 PM	<p>Break</p>
2:30 PM	<p>Ocean Planning Committee <i>NROC Co-Chairs: Ted Diers, NH Department of Environmental Services; and Lou Chiarella, NOAA Fisheries</i> <i>NROC Staff: Amy Trice, Senior Program Director for Ocean Planning and Coastal and Ocean Ecosystem Health; and Emily Shumchenia, Science and NE Ocean Data Portal Director</i></p> <ul style="list-style-type: none"> ● Submerged Archaeological and Cultural Resources Work Group – Update and next steps ● Northeast Ocean Data Portal ● Overview of 2024-2028 Work Plan and input on future project priorities
3:45 PM	<p>NROC Meeting Wrap Up and Next Steps <i>NROC Co-Chairs: Jeff Willis, RI CRMC; and Rick Bennett, US FWS</i></p>
4:00 PM	<p>Adjourn</p>

Virtual Access Information

Topic: NROC Annual Meeting

Time: Nov 30, 2023 09:00 AM Eastern Time (US and Canada)

[https://us06web.zoom.us/meeting/tZYkd-6tqjktGd1WzO2hn40vzy_E-FeiSLed/ics?icsToken=98tyKuGqpzs_tH9CXtxqORpwQHYigKO_wiHpajacMqwXKUShdNIPgLpt9F_9ZFdHj](https://us06web.zoom.us/join/https://us06web.zoom.us/meeting/tZYkd-6tqjktGd1WzO2hn40vzy_E-FeiSLed/ics?icsToken=98tyKuGqpzs_tH9CXtxqORpwQHYigKO_wiHpajacMqwXKUShdNIPgLpt9F_9ZFdHj)

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Briefing Materials

Potential Projects for Infrastructure Investment and Jobs Act (IIJA) funding from 2025 through 2027

NROC is looking for your input on the following potential projects for future funding. As such, we recommend attendees read through this section and discuss with others in their organization in advance of the meeting, so they will be prepared to provide feedback.

Projects are organized by committee: 1) Coastal hazards resilience committee, 2) ocean planning committee, and 3) ocean and coastal ecosystem health committee. Each committee’s project list is followed by a summary table.

Legend for NROC capacity required of each potential project

NROC guidance and coordination		NROC staff capacity	
Funding for small sub-contract	\$	Funding for large or multiple sub-contract	\$ \$

1. COASTAL HAZARDS RESILIENCE COMMITTEE

1.1. Regional coordination on water level sensor projects (existing and funded) among NROC members and partners, e.g., on sensor placement and the efficacy and/or gaps of monitoring networks. Expanded coordination and outreach with NERRs on all aspects of water level sensor monitoring.



1.2. Development of requirements and data products from the water level monitoring network for specific management applications.



\$ to support the understanding of requirements, best practices and to develop data products addressing management needs.

1.3. Deployment of additional water level sensors in priority locations throughout New England. **Development or support for mapping/web tools** that provide information on water levels.



\$ \$ for sensor deployment and web/mapping tools.

1.4. Regional coordination and support for promoting dialogue and advancing knowledge on strategies for responding to sea level rise. Host roundtable discussions and / or workshops on sea level rise and other coastal adaptation topics of interest in the region.



- 1.5. Regional coordination and support for **advancing nature-based infrastructure and living shorelines management approaches**. Projects will build on NROC's ongoing efforts to increase knowledge, tools, and resources to facilitate design, permitting, implementation, and monitoring of living shorelines in New England. Specific projects may include:
- Facilitate dialogue among federal agencies to identify and promote opportunities to improve permitting of living shorelines.
 - Build on efforts to explore habitat tradeoffs of living shorelines in the context of climate change.
 - Develop resources and provide guidance to improve understanding about living shorelines design, implementation, and monitoring among landowners, engineers, and communities.



\$ potential contract to develop resources and guidance

- 1.6. **Expand outreach, collaboration, and coordination with Sea Grant programs to advance coastal hazard resilience** in New England. Meet with Sea Grant partners to identify shared priorities and opportunities to collaborate on joint efforts.



\$ depending on project development

- 1.7. **Expand engagement with Tribes** on CHR Committee activities in New England. **Expand or develop new CHR Committee initiatives to reflect priorities identified by Tribes**. CHR Committee proposed projects will be updated as needed to reflect Tribal priorities.



\$ depending on project development

- 1.8. **Partner with USACE to expand outreach and engagement to advance beneficial reuse of sediments** in New England. Share resources and /or host roundtable discussions to highlight opportunities to incorporate beneficial reuse of sediments into coastal resilience projects in New England.



Summary Table

1. COASTAL HAZARDS RESILIENCE COMMITTEE	NROC guidance and coordination	NROC staff capacity	Funding for small sub-contract	Funding for large or multiple sub-contracts
1.1 Regional coordination on existing and funded water level sensor projects	✱	👤👤👤		
1.2 Development of requirements and data products from the water level monitoring network for specific management applications.	✱	👤👤👤	\$	
1.3 Deployment of additional water level sensors in priority locations; development or support for mapping/web tools	✱	👤👤👤		\$\$
1.4 Promoting dialogue and advancing knowledge on strategies for responding to sea level rise	✱	👤👤👤		
1.5 Advancing nature-based infrastructure and living shorelines management approaches	✱	👤👤👤	\$	
1.6 Expand outreach, collaboration, and coordination with Sea Grant programs to advance coastal hazard resilience	✱	👤👤👤	\$	
1.7 Expand engagement with Tribes; expand or develop new CHR Committee initiatives to reflect priorities identified by Tribes	✱	👤👤👤	\$	
1.8 Partner with USACE to expand outreach and engagement to advance beneficial reuse of sediments	✱	👤👤👤		

2. OCEAN PLANNING COMMITTEE

- 2.1. Regional coordination and support for current ocean and coastal management and regulatory activities** defined by the Ocean Planning Committee, NROC members, partners, and public input. *(Note: This is essentially staff supporting planning activities as needed – recent examples include supporting BOEM’s public and Task Force Meetings in the Gulf of Maine and providing updates about agency actions and related public comment opportunities via the Data Portal.)*



- 2.2. Host regional forums on emerging issues** to better understand different methods/technologies, permitting processes, and data needs (e.g., marine carbon dioxide removal, wave/wind energy, aquaculture, energy transmission). A forum/webinar on marine carbon dioxide removal has been proposed for 2024 and may lead to additional activities in 2025-2027.



\$ depending on level of effort of forums

- 2.3. Coordinate with the federal administration on ocean policy priorities** (e.g., Ocean Climate Action Plan, National Strategy for a Sustainable Ocean Economy) and link to New England regional priorities.



- 2.4. Advance projects under the Submerged Archaeological Resources Workgroup** as defined by workgroup members. Projects planned in 2024: conduct a literature review of existing mapping efforts and current understanding of areas with potentially submerged Tribal cultural resources; use existing seafloor data to identify potential locations of submerged cultural landscapes based on the literature review outputs. Projects in 2025-2027 will build off the 2024 work and could include the following *(note: this will be informed and modified by workgroup discussions leading up to 11/30)*.

A. Continued seafloor mapping and screening for potential submerged cultural landscapes.

B. Integration of cultural and archaeological data into data and mapping information systems for use in management and regulatory processes, ensuring appropriate access privileges and confidentiality controls.

C. Identify best practices for incorporating cultural and archeological information early into regulatory and management processes and consultations.



\$ \$ possible to support A – C possible. A and B would require significant funding.

- 2.5. Update and share “Best Practices for Ocean Permitting and Management Processes.”** The document recommends practices for the use of data/information, interjurisdictional coordination, and stakeholder engagement.



2.6. **Provide technical assistance to the Tribes** on the development of geospatial data, managing geospatial data infrastructure, and using and contributing to the Northeast Ocean Data Portal.



\$ possible for technical assistance to tribes

2.7. **Northeast Ocean Data Portal.** The Portal is managed by NROC staff and longtime team members from RPS/TetraTech and Waterview Consulting. The technical infrastructure and routine outreach and data updates are supported by Operations and Maintenance funding provided by BOEM and Regional Data Sharing funds provided by NOAA via an annual federal appropriation. Significant data and outreach projects require additional funding. Potential priorities are listed below. *In addition, BOEM and NOAA funds are provided annually with no certainty, and therefore a potential priority is to set aside BIL funds to ensure sufficient funding.*

A. **Recreational boating, party/charter fishing, and private recreational fishing:** It has been many years since we updated the recreational boating data and we have limited information on party/charter fishing and private recreational fishing.



\$ \$ to conduct extensive outreach and collect and integrate data

B. **Maritime industry:** Additional funding may be necessary to support outreach to the maritime industry.



\$ to support staff outreach, to identify data needs, and to summarize results

C. **Commercial fishing:** Data on commercial fisheries require regular updates, maintenance, and improvements supported by consistent outreach. Work will be conducted in collaboration with NMFS, NEFMC, and industry representatives.



\$ \$ for data development

D. **Marine life and habitat:** Data on marine life require regular updates, maintenance, and improvements supported by consistent outreach to experts through marine mammal, sea turtle, avian, and habitat work groups in collaboration with RWSC. NROC has funded Duke Marine Geospatial Ecology Lab and their partners for many years to conduct this work which requires regular updates based on developing products from the latest distribution models.



\$ \$ for data development

E. **Seafloor mapping data archive:** A critical need for the region is to ensure seafloor mapping data and related products are available as soon as reasonably possible to ensure habitat assessments rely on the latest information. This is especially critical within the region given the increase in seafloor mapping activities funded by federal, state, and industry sources. RWSC has identified a need for a single access point and archive of seafloor mapping data and is developing data sharing procedures and agreements. NROC has developed a pilot application for providing, archiving, and

disseminating seafloor and habitat assessments. Additional funding for a contractor is necessary to build out the application and conduct outreach to ensure it is used.



\$\$ to build application and conduct outreach to ensure usage

- F. **Unexploded ordnance:** Mapping and pre-construction activities associated with offshore wind development has led to the discovery of previously unknown locations of unexploded ordnance. Each offshore wind developer provides data when new or moved ordnance has been discovered. It is currently unknown whether these data are integrated into a comprehensive map that could be used in planning. It is possible this task is or will be completed by NOAA.



\$ potential subcontract to develop and update a single data layer

- G. **Energy transmission planning:** The OPC requested that NROC staff identify the data needed for transmission planning, particularly in the Gulf of Maine. While much of the data available through the Portal are likely to already inform transmission planning, there could be a need for additional data development or products that are specific to transmission planning.



- H. **Marine carbon dioxide removal (mCDR):** A forum or webinar in 2024 will likely include a discussion on specific data requirements for better understanding mCDR projects, their potential impacts, and potential benefits. This could lead to the need for additional data development or products that are specific to mCDR.



- I. **Research planning data and applications:** Several projects and committees have identified the need for a web application and data products that track monitoring and research activities and provide single-point access to the many existing data archives. This would significantly improve research planning, coordination, and data accessibility.

In particular, RWSC has received funding to develop a web mapping application to provide information on recent, current and planned wildlife research for offshore wind development. This application could be expanded to provide a single directory for the data that are collected and submitted using existing data pathways and archives, which are often not connected. The research tracking application and data directory would have links to the Northeast Ocean Data Portal and the datasets collected by federal agencies, states, Tribes, and others. This project could be jointly funded by RWSC NROC (and potentially MARCO as the co-host of RWSC), and the technology could be replicated for other types of monitoring and research data (such as data for ocean acidification – see the Ocean and Coastal Ecosystem Health Committee project list).



\$\$ for the development of a single access point (web application) for research and monitoring data.

2.8. Research planning through the Regional Wildlife Science Collaborative (RWSC) for Offshore Wind

- A. **Increase Tribal engagement in RWSC:** Tribes are currently welcomed to participate in RWSC via six expert Subcommittees. The OPC requested that NROC staff explore methods for engaging Tribes in the strategic direction of RWSC and in the ongoing coordination and information-sharing activities that include the federal agencies, states, eNGOs, and offshore wind industry.
- B. **Support RWSC workshops:** Several (if not all) OPC members and their staff participate in RWSC through expert Subcommittees. There will be an ongoing need for RWSC Subcommittees to convene at in-person locations throughout the region on topics including coordinating field research/data collection efforts, development of best practices for data collection and management, and prioritizing funding. The NROC OPC can support RWSC workshops by providing meeting space in public agency buildings and other logistical support. Occasionally, RWSC workshop topics may overlap with the NROC OPC Work Plan and staff can facilitate closer coordination and jointly hosted events.










\$ possible for technical assistance for the tribes

2.9. Review the status and use of the 2016 Northeast Ocean Plan as it relates to current ocean data uses, best practices, and ocean and coastal management priorities and needs. Provide a summary of proposed activities which have been updated and those that require updating.



Summary Table

2. OCEAN PLANNING COMMITTEE	NROC guidance and coordination	NROC staff capacity	Funding for small sub-contract	Funding for large or multiple sub-contract
2.1 Regional coordination and support for current ocean and coastal management and regulatory activities	✱	👤👤👤		
2.2 Host regional forums on emerging issues	✱	👤👤👤	\$	
2.3 Coordinate with the federal administration on ocean policy priorities	✱	👤👤👤		
2.4 Advance projects under the Submerged Archaeological Resources Workgroup				
A. Continued seafloor mapping and screening for potential submerged cultural landscapes.	✱	👤👤👤	\$ \$	
B. Integration of cultural and archaeological data	✱	👤👤👤	\$	
C. Identify best practices for incorporating cultural and archeological information	✱	👤👤👤	\$ \$	
2.5 Update and share “Best Practices for Ocean Permitting and Management Processes.”	✱	👤👤👤		
2.6 Expand outreach, collaboration, and coordination with Sea Grant programs to advance coastal hazard resilience	✱	👤👤👤	\$	
2.7 Northeast Ocean Data Portal				
A. Recreational boating, party/charter fishing, and private recreational fishing	✱	👤👤👤		\$ \$
B. Maritime industry	✱	👤👤👤	\$	
C. Commercial fishing	✱	👤👤👤		\$ \$
D. Marine life and habitat	✱	👤👤👤		\$ \$
E. Seafloor mapping data archive	✱	👤👤👤		\$ \$

F. Unexploded ordnance			\$	
G. Energy transmission planning				
H. Marine carbon dioxide removal				
I. Research planning data and applications				\$ \$
2.8 Research planning through the Regional Wildlife Science Collaborative (RWSC) for Offshore Wind				
A. Increase Tribal engagement in RWSC			\$	
B. Support RWSC workshops			\$	
2.9 Review the status and use of the 2016 Northeast Ocean Plan				

3. **OCEAN AND COASTAL ECOSYSTEM HEALTH COMMITTEE**

- 3.1. Continue to **convene the Blue Carbon Workgroup and update the submerged aquatic vegetation, marsh data, and blue carbon assessments** within the Northeast Regional Ocean Data Portal. Evaluate how coastal vegetation blue carbon assessments are used in decision making. Develop additional products, as needed, to inform decision-making needs.



\$\$ to update assessments, conduct outreach, inform planning

- 3.2. **Support management tools to evaluate marsh conditions** including blue carbon value and change over time for both marshes and eelgrass. Link to other ongoing regional modeling efforts including the sequestration function of marshes and stored blue carbon over time. Support standardized protocols for understanding marsh conditions and enhancing blue carbon data. Engage in regional dialogue on state and regional needs.



\$\$ to host workshops, update assessments, conduct outreach, inform planning

- 3.3. **Conduct outreach regarding blue carbon and marsh migration tools to states, municipalities, and others** to inform them of the blue carbon assessment and provide technical assistance for using assessments in land use planning as well as restoration and habitat enhancement projects. Support, where appropriate, workshops and a community of practice.



\$ to host workshops and conduct outreach

- 3.4. **Advance regionally defined seafloor mapping and habitat classification priority area identification** throughout the region. Consider outreach to additional sectors and regional partners for seafloor mapping needs. Support critical mapping efforts defined in the Gulf of Maine. Work with the Habitat Classification and Ocean Mapping Subcommittee to support regional prioritization results to advance mapping offshore as well as coastal areas. Coordinate and link work to the Regional Wildlife Science Collaborative (RWSC) for Offshore Wind Habitat Committee and integrate data, where appropriate, with Submerged Archeological and Cultural Resources Workgroup within the Ocean Planning Committee. Advance habitat classification community of practice and engage other regional partners on regional mapping prioritization.



\$\$ for mapping, data analysis, and products (could require significant investments)

- 3.5. **Implement actions defined in the Northeast Coastal Acidification Network (NECAN) Plan from 2025-2027.** Develop and update ocean acidification data and evaluate needs related to ongoing state assessments. Understand how ocean acidification assessments are used in decision making. Coordinate regional engagement with NECAN, NERACOOS, and other regional partners to ensure collective understanding of ocean acidification impacts on New England ecosystems and economies.



\$ to fund additional actions in the NECAN OA Plan

- 3.6. **Funding coordination and specific activities of the Integrated Sentinel Monitoring Network (ISMN) Science and Implementation Plan.** The Science and Implementation Plan was finalized by NROC and NERACOOS in 2016. Since then, NERACOOS has intermittently convened a steering committee to guide ISMN implementation. Additionally, in recent years, many government and non-governmental organizations, including NROC, have advanced aspects of the ISMN Plan through existing programs (e.g., NROC’s work developing marine life distribution and abundance products and change over time; the development of tidal marsh, submerged aquatic vegetation, and related blue carbon products and change over time; RWSC Science Plan and related research and monitoring priorities).

Potential activities for ISMN coordination and implementation for 2025-2027 include:

- A. **Identifying key indicator themes and gaps in monitoring and assessment** for those themes throughout the region.
- B. **Understanding regional needs related to identified indicator themes**, developing compilation of monitoring sites, and focusing on themes where gaps exist (such as understanding relationships between climate pressures and seasonality of phytoplankton, zooplankton, and higher tropic level seasonal cycles; invasive species observations; locating strategic time series stations; analyzing USACE dredged material disposal areas in New England as a reference data set for baseline information; and, better understanding current pathogens).
- C. **Enhancing the ISMN website** to better describe ongoing monitoring activities and assessments for key indicator themes.
- D. Every 3-5 years, **conducting a regional assessment across indicator themes** and provide information on changing conditions through the ISMN website. Develop communication plan to decision makers who use information.
- E. As needed, **convening experts to respond to current events** that are identified through the ISMN network (such as recently done by UNH and NERACOOS for Tripos).
- F. **Creating a formal rapid response network** within New England modeled off harmful algal bloom work (discussion of role of NROC given other partners in the region).



\$ \$ for convening workshops and regional assessments

- 3.7. **Synthesize landscape of existing and developing models within the region related to hydrodynamic modeling for bays and estuaries** with a focus on water quality and nutrients. Evaluate what models are compatible and could be built upon.



\$ \$ for model analysis and products and workshop convening

Summary Table

3. OCEAN AND COASTAL ECOSYSTEM HEALTH COMMITTEE	NROC guidance and coordination	NROC staff capacity	Funding for small sub-contract	Funding for large or multiple sub-contract
3.1 Convene the Blue Carbon Workgroup and update the submerged aquatic vegetation, marsh data, and blue carbon assessments	✱	👤👤👤		\$ \$
3.2 Support management tools to evaluate marsh conditions	✱	👤👤👤		\$ \$
3.3 Conduct outreach regarding blue carbon and marsh migration tools to states, municipalities, and others	✱	👤👤👤	\$	
3.4 Advance regionally defined seafloor mapping and habitat classification priority area identification	✱	👤👤👤		\$ \$
3.5 Implement actions defined in the Northeast Coastal Acidification Network (NECAN) Plan from 2025-2027	✱	👤👤👤	\$	
3.6 Funding coordination and specific activities of the Integrated Sentinel Monitoring Network (ISMN) Science and Implementation Plan.				
A. Identifying key indicator themes and gaps in monitoring and assessment	✱	👤👤👤		\$ \$
B. Understanding regional needs related to identified indicator themes	✱	👤👤👤		\$ \$
C. Enhancing the ISMN website	✱	👤👤👤		\$ \$
D. Conducting a regional assessment across indicator themes	✱	👤👤👤		\$ \$
E. Convening experts to respond to current events	✱	👤👤👤		\$ \$
F. Creating a formal rapid response network	✱	👤👤👤		\$ \$
3.7 Synthesize landscape of existing and developing models within the region related to hydrodynamic modeling for bays and estuaries	✱	👤👤👤		\$ \$

NROC Executive Committee Update

NROC Executive Committee – NROC Funding Status Update

NROC Funding from Infrastructure Investment and Jobs Act

1. NOAA-NOS-OCM-2022-2007464

- **Project:** *Implementation and Coordination of Coastal and Ocean Management Priorities for the Northeastern United States via the Northeast Regional Ocean Council*
- **Total Award:** \$3,924,563
 - 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 are led by NROC Executive Committee and Coastal Hazards Resilience Committee (CHRC), Ocean and Coastal Ecosystem Health Committee (OCEH), and Ocean Planning Committee (OPC)
- **Funding Period:** December 2022 - November 2024
- **Project Details:** See *pp. 6* for a summary of projects

Ocean Planning Committee

2. Bureau of Ocean and Energy Management

- **Project:** *Operations and maintenance of the Northeast Ocean Data Portal*
- **Award:** \$200,000
- **Lead:** NROC (via Coastal States Stewardship Foundation as fiscal sponsor)
- **Funding Period:** September 2023 – September 2024

3. FY2023 NOAA Regional Ocean Data Sharing/Regional Ocean Partnership Funding

- **Project:** *Update fishing, marine life and habitat, recreation, maritime, seafloor, 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

4. MA Clean Energy Center (*Recently Closed*)

- **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 – July 2023

5. Maine Governor's Energy Office (*Recently Closed*)

- **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 – March 2023

6. Funding for Regional Wildlife Science Collaborative for Offshore Wind
(Co-hosted 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.

Current and Recently Closed Funding

To date in FY 2024 (July 1 2023 – June 30 2024), RWSC received \$581,424, which includes carryover from FY 2023, \$242,000 in membership dues from 15 individual entities (states, eNGOs, offshore wind companies), and funding for the following projects and research:

- A. *Regional Wildlife Science Collaborative Support to provide resources for offshore wind research planning and coordination*
 - Funder: Bureau of Ocean Energy Management
 - Award: \$450,000
 - Funding Period: August 2023 – July 2025

- B. *Power analysis for optimal design of a Passive Acoustic Monitoring network in the Atlantic Ocean*
 - Funder: Bureau of Ocean Energy Management
 - Award: \$45,000
 - Funding Period: Recently Closed

- C. *Developing a baleen whale monitoring plan for Virginia's Wind Energy Area*
 - Funder: Virginia Department of Environmental Quality
 - Award: \$49,887
 - Funding Period: Recently Closed

- D. *A systems approach to research and risk assessment for offshore wind development from Maine to North Carolina*
 - Funder: Duke University; Original grant from the Department of Energy and Bureau of Ocean Energy Management
 - Award: \$45,000
 - Funding Period: Recently Closed

Pending Funding

- E. Membership dues: Another ~\$178,000 in membership dues for FY 2024 is pending payment. RWSC expects a similar level and mix of operational funding for FY 2025.

- F. Offshore Wind and Wildlife Research Fund: RWSC is building capacity and raising funds to support a Research Fund in FY 2024 and beyond. In July 2023, [RWSC signed an MOU with the Center for Ocean Leadership](#) to administer and support the implementation of a Research Fund. A pending contract with Equinor will provide support for initiating the administration of the Research Fund and developing a framework and evaluation system for future Requests for Proposals (\$360,000; 12 months). RWSC is working with prospective funders to capitalize the fund and achieve the outcomes of the Science Plan.

Recommendations for NROC approval

NROC / NERACOOS Water Level Sensor Monitoring in New England (2024)

Background

With IJIA funding, NROC's Coastal Hazards and Resilience Committee is working in partnership with NERACOOS and NOAA to assess and deploy a variety of water level sensors across the Northeast region to expand monitoring for overland flood detection during coastal storm events and observation of nearshore water levels. In September, the project team hosted a two-day, in-person technology showcase and workshop in Portsmouth, NH where participants met with vendors to learn about low-cost water level sensors that are appropriate for the New England environment. The workshop also increased awareness about Northeast water level monitoring, activities, priorities, and gaps.

Identifying Potential Sites for New Water Level Sensors

NROC and NERACOOS have been conducting outreach to identify potential locations for water level sensors in the region. During the September workshop, representatives from government agencies, communities, non-governmental organizations, academia, and other partners were asked to identify potential sites for consideration. The project team created a story map to help visualize locations for potential sites and provide a user-friendly tool to collect recommendations. The story map and invitation to recommend new water level monitoring sites have been circulated to more than 2,000 people to ensure broad involvement in the selection of potential new water level monitoring sites. NROC has also been working through their Tribal Engagement Coordinator to provide an opportunity for Tribal members to recommend priority sites.

Link to Storymap: <https://storymaps.arcgis.com/stories/c389f86a09d0438d9617888bbe244e6f>

Criteria for Selecting Locations for Water Level Sensor Deployment

The selection of sites for the deployment of water level sensors via NROC/NERACOOS IJIA-funding will be prioritized and selected by considering the factors below. These criteria will also inform other region-wide efforts to increase deployment. Sites that reflect multiple selection factors will be considered a higher priority for deployment.

- Site addresses a key priority issue (e.g., coastal flooding, compound flooding, infrastructure or ecosystem resilience concerns)
- Site is located in an environmental justice community as defined by recognized tools such as the EJ Screen, or Justice40 Mapping Tool. Communities designated by states as Environmental Justice, or other recognized EJ criteria will also be prioritized.
- Site has been identified as a Tribal priority
- Selection of site helps promote a balanced and equitable geographic distribution in the region
- Site fills a gap in water level monitoring coverage and does not duplicate other efforts
- Capacity for operations and maintenance of the site have been demonstrated

Feedback Requested

- NROC members and partners are asked to review and provide feedback during the meeting on the criteria for selecting locations for the deployment of new water level sensors.
- NROC members and partners are invited to propose locations for new water level sensors via this Storymap: <https://storymaps.arcgis.com/stories/c389f86a09d0438d9617888bbe244e6f>
- To be considered in the first round of site selection, please add sites by **December 15, 2023**.

OCEAN ACIDIFICATION

The Northeast Coastal Acidification Network (NECAN) is developing an Ocean Acidification Monitoring Plan. NROC currently has \$125K to deploy with priorities for use defined by the plan in development.

Options for funding include:

- A. Developing spatial map(s) of where long-term climate monitoring and ongoing biological monitoring are occurring for the Northeast Ocean Data Portal. This would advance long-term OA research, planning, and increase understanding throughout the region. Understanding current spatial extent of monitoring would allow for planning for future OA monitoring sites and underpin key recommendations with the NECAN OA Plan. Activities include:
 - NROC staff and Portal Team convening discussion with NECAN on available data and understanding needs
 - Outlining existing biological data currently available on the Portal and coordinate ongoing work within the Regional Wildlife Science Collaborative related to biological monitoring
 - Engaging experts on data gaps and needs that are currently not available on the Portal
 - Assessing the potential to develop other relevant data layers such those related to settlement and recruitment sites, others as defined by NECAN and relevant experts
 - Developing a spatial layer related to the NERACOOS buoy system and other ongoing regional monitoring.
- B. Partnering with commercial fishermen to advance winter ocean acidification monitoring to gain additional seasonal data (most collection is in spring/summer)
- C. Developing a multiple stressor index for ocean acidification; Develop multiple stressor indices for a particular species that includes OA variables (e.g. T, S, O₂, Ω, pCO₂, HABs)
- D. Supporting a workshop to develop a broader understanding of biogeochemistry, biology, and models; gaps analysis of ocean acidification data being collected; defining sentinel site; development of indices that include OA for broader decision making for states, fisheries, and aquaculture industry
- E. Funding sensor deployment in coordination with National Estuarine Research Reserves and National Estuary Programs (*note that there are costs associated with long-term investment; entities must be willing to invest long-term*)
- F. Funding sensor deployment and supporting technical assistance with potentially interested Tribes (*note that there are costs associated with long-term investment; entities must be willing to invest long-term*)
- G. Identifying potentially interested industries for sensor deployment (*note that there are costs associated with long-term investment; entities must be willing to invest long-term*)
- H. Identify a roving OA monitoring suite of assets that could be relocated and deployed on relatively short notice to areas of concern

Updates from NROC Partners

Offshore Wind Updates from Bureau of Ocean Energy Management (BOEM)

Submitted by Aditee Madkekar, BOEM

- Recent Gulf of Maine offshore wind activities
 - On October 19, 2023, BOEM [announced](#) a Draft Wind Energy Area (Draft WEA) in the Gulf of Maine and opened an accompanying 30-day public comment period which closed on November 20, 2023
 - BOEM also held [virtual public meetings](#) from November 1st to 3rd
 - BOEM and NCCOS worked with the Northeast Ocean Data Portal staff to provide the Draft WEA shapefiles and NCCOS model results to facilitate public review and commenting
 - [Spatial Suitability Model Outputs for the Gulf of Maine](#)
 - BOEM is accepting [environmental study ideas for fiscal years 2025 and 2026](#) with suggestions due by December 7, 2023

More information about BOEM's offshore wind activities, please visit our website at <https://www.boem.gov/>

BOEM Notes to Stakeholders and Press Releases

11/06/2023 | Note to Stakeholders

[BOEM Seeks Input to Inform Environmental Analysis for Additional Site Assessment Activities on Proposed Wind Energy Project Offshore Massachusetts](#)

10/30/2023 | Note to Stakeholders

[REMINDER: Virtual Public Meetings for BOEM Gulf of Maine Draft Wind Energy Area](#)

10/19/2023 | Press Release

[BOEM Releases Draft Wind Energy Area in the Gulf of Maine for Public Review and Comment](#)

09/19/2023 | Press Release

[Biden-Harris Administration Releases Roadmap to Accelerate Offshore Wind Transmission and Improve Grid Resilience and Reliability](#)

08/22/2023 | Press Release

[Biden-Harris Administration Approves Fourth Major Offshore Wind Project](#)

07/19/2023 | Press Release

[BOEM Seeks Public Input on Draft Environmental Analysis of Gulf of Maine Offshore Wind Research Lease](#)

07/17/2023 | Press Release

[BOEM Completes Environmental Analysis for Proposed Wind Project Offshore Rhode Island](#)

06/29/2023 | Press Release

[BOEM Announces Environmental Review of Proposed Wind Energy Project Offshore Massachusetts](#)

05/03/2023 | Press Release

[BOEM Seeks Public Input to Inform Environmental Review of Gulf of Maine Offshore Wind Research Lease](#)

Submitted by GOMC Working Group Chair Prassede Vella, MassBays

GOMC JUNE 2023 MEETING, BOSTON, MA

The Gulf of Maine Council hosted a two-day in-person meeting at EPA's office in Boston, June 7-8, 2023. The following key issues were covered during the meeting:

- Accomplishments and next steps for the *Regional Collaboration to Address Marine Debris in the Gulf of Maine* (partners include NOAA, GOMC, Blue Ocean Society, Center for Coastal Studies, Huntsman Marine Science Centre, Surfrider Foundation, and Urban Harbors Institute).
- Results from UMASS Boston research projects about the impacts of microplastics on marine life.
- Update from Fisheries and Oceans Canada on coastal and marine spatial planning related to offshore wind planning in Canada.
- Highlights from the Regional Wildlife Science Collaborative for Offshore Wind, including an update regarding development of an Integrated Science Plan for Wildlife, Habitat, and Offshore Wind Energy in U.S. Atlantic Waters.
- Overview of USGS integrated science projects and activities in the Gulf of Maine and discussion about opportunities for engagement between the Gulf of Maine Council and USGS.
- Overview of Fisheries and Oceans Canada work related to marine environmental quality including marine contaminants, ocean noise, and marine debris. Discussion regarding potential opportunities for collaboration with Gulf of Maine Council.
- Update regarding the status of North Atlantic right whales in the Gulf of Maine.
- Presentations from the meeting are available [here](#).

NEXT GOMC MEETING: DECEMBER 12, 2023 (VIRTUAL)

GOMC will host a virtual Council / Working Group meeting on December 12, 2023, from 9 AM – 12 PM ET / 10 AM – 1 PM. The meeting agenda topics will include an update regarding the Nova Scotia Offshore Wind Roadmap, a discussion about NROC projects and opportunities for NROC / GOMC collaboration, GOMC member highlights, GOMC 2-Year Work Plans, and GOMC 5-Year Framework for Action. Meeting details will be posted [here](#).

GOMC AWARDS

GOMC hosted an international awards ceremony on June 7, 2023, at the Omni Parker House Hotel in Boston 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 following awards were presented:

Gulfwide Awards

- **Ted Diers** of New Hampshire received the Susan Snow-Cotter Leadership Award for outstanding leadership as a coastal management professional within the Gulf of Maine.
- **Donald Clement** of New Hampshire received the Longard Volunteer Award for outstanding volunteer efforts to protect and conserve natural resources within the Gulf of Maine.

- **Atlantic Canada Fish Farmers Association** of New Brunswick received the Sustainable Industry Award for outstanding innovation and leadership in achieving sustainable business practices and conserving natural resources within the Gulf of Maine.
- **Friends of Belle Isle Marsh** of Massachusetts received a Sustainable Communities Award for exemplary work in achieving sustainable outcomes related to the environment and economy in the Gulf of Maine.
- **St. George and St. Andrew United Church** of Nova Scotia received a Sustainable Communities Award for exemplary work in achieving sustainable outcomes related to the environment and economy in the Gulf of Maine.

Visionary Awards

The following individuals received Visionary Awards in recognition of their outstanding innovation, creativity, and commitment to protecting natural resources within the Gulf of Maine.

- **Mike Cormier**, New Brunswick
- **John Bottomley**, Nova Scotia
- **Dr. Mark Mallory**, Nova Scotia
- **Paul Dest**, Maine
- **Ralph Keyes**, Maine
- **Jay Diener**, New Hampshire
- **Robert Buchsbaum**, Massachusetts
- **Peter Phippen**, Massachusetts

Distinguished Service Award

Becca Newhall received a Distinguished Service Award for exceptional service and contributions to the Gulf of Maine Council over the past several years.

Nominations for the 2024 awards program will be posted at [GOMC Awards](#) early next year.

REGIONAL COLLABORATION TO ADDRESS MARINE DEBRIS IN THE GULF OF MAINE

With funding from the NOAA Marine Debris Program's North America Marine Debris Prevention and Removal Program, the Gulf of Maine Council has been working with partners - Urban Harbors Institute, Surfrider Foundation, Center for Coastal Studies, Blue Ocean Society, and Huntsman Marine Science Centre - to implement gulf-wide and targeted actions to reduce and prevent the introduction of marine debris into the Gulf of Maine in support of NOAA's Gulf of Maine Marine Debris Action Plan. Accomplishments since launching the project include:

- Conducted 541 coastal cleanups across Nova Scotia, New Brunswick, Maine, New Hampshire, and Massachusetts
- Engaged 3,208 volunteers in 7,251 hours of service
- Removed 46,077 pounds of debris from coastal sites located throughout the Gulf of Maine
- Collected 15,780 lbs. of discarded fishing-related rope to recycle or repurpose
- Hosted workshops to promote recycling and creative reuse of old fishing rope
- Helped identify, raise awareness, and remove unidentified yellow plastic shock tubing from coastal areas in the Gulf of Maine
- Signed up seven new ocean-friendly restaurants that commit to sustainable practices
- Conducted outreach to 7,860 recreational boaters at New England Boat Show

- Educated 3,708 students and adults through a variety of educational programs
- Hosted several international forums to promote understanding and collaboration on addressing the environmental problem of marine debris in the Gulf of Maine
- Presented at sessions and hosted a poster at the 7th International Marine Debris Conference in Busan, Republic of South Korea
- Additional information is available via the [project webpage](#).

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.

RECENT PUBLICATIONS

Gulfwatch Contaminants Monitoring

- Swam, Lauren M., Apeti, Dennis A., Rider, Mary M., Jones, Stephen; Reed, Lou Ann. (2023). *An Assessment of Legacy Organic Contaminants and Trace Metals in the Gulf of Maine*. National Centers for Coastal Ocean Science (U.S.), Consolidated Safety Services, Inc., and University of New Hampshire. NOAA technical memorandum NOS NCCOS: 319. <https://repository.library.noaa.gov/view/noaa/52110>

Climate Network

- Quarterly Climate Impacts and Outlook, Gulf of Maine Region, September 2023. <https://www.gulfofmaine.org/public/wp-content/uploads/2023/10/GOM-Summer-2023-Quarterly-final-updated.pdf>

Lisa Engler, MA CZM

- CZM, working with NOAA OCS, led an HCOM effort to identify seafloor mapping priorities throughout the northeast.
- CZM has partnered with Maine DMR and NOAA OCS to fund a private contractor to provide seascapes from Maine to the MA/RI border.
- CZM has been communicating with NOAA IOCM about areas of shared interest in Massachusetts as NOAA plans its bathymetric surveys to improve NOAA charts.

Product and Data updates

- [Employment in Coastal Inundation Zones](#) dataset
- Habitat Coastal and Ocean Mapping prioritization study nearing completion
- [2021 NOAA NGS Topobathy Lidar: Gloucester, MA](#)
- [2022 NOAA NGS Topobathy Lidar: Chatham Bay to Monomoy Point, MA](#)
- MarineCadastre.gov new or updated - [Data Registry](#)
 - Integrated Ocean Observing System Regions
 - Anchorages
 - Offshore State Lateral Boundaries
 - Wrecks and Obstructions
 - Coastal Wetlands
 - Munitions and Explosives of Concern
 - Atlantic Wave Climatology (30 year hindcast)
 - AIS Vessel Traffic - 2023 Q1, Q2, Q3
- MarineCadastre.gov - planned new or updates
 - Department of Defense - offshore operational areas
 - Seagrass
 - Tropical Cyclones
 - Submarine Cables

Training opportunities

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

Technical Assistance

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

Fellow News

- [Summer Edition of Fellow News](#)
- Connecticut and Maine are hosting a [Coastal Management Fellow in 2023](#) who started on August 1st. Projects:

- *ImPACT: Improving Public Access in CT* (host agency: CT DEEP). Goal is to Spearhead a multipronged approach for addressing coastal public access needs in Connecticut through an equity and environmental justice lens.
- *Implementing Maine's Climate Action Plan through Innovation in Municipal Training and Technical Assistance* (host agency: ME Coastal Program). Goal is to Help Maine's vulnerable coastal communities implement Maine's Climate Action Plan, by designing, conducting and evaluating an innovative municipal outreach and technical assistance program.

Upcoming Events

- [Social Coast Forum](#) focuses on applying social science data, tools, and practices to address pressing coastal management issues. Join us February 12-15, 2024 in Charleston, SC.

Coming soon...

- Seascape 2 project is expected to conclude in early 2024.

Other

- 2023 National Coastal Resilience Fund award decisions coming by end of November. This is a partnership program with NFWF and funds
- OCM is partnering with the HCOM subcommittee to conduct a data gap/prioritization effort in the northeast NY-ME.
- March Newsletters from OCM
 - [Digital Coast Connections](#)
 - [Coastal Communicators](#)

Northeast Sea Grant Consortium Updates

Submitted by Maine Sea Grant Director, Chair of NE SG Consortium - contact: gayle.zydlowski@maine.edu
Consortium Website - <https://www.northeastseagrants.com/>

Regional research and extension

- Ocean Renewable Energy - <https://www.northeastseagrants.com/initiatives/ocean-renewable-energy>
- American Lobster Initiative - <https://seagrants.umaine.edu/extension/american-lobster-initiative/>

New funding from National Sea Grant Program to State Programs

- Marine Debris (Infrastructure Bill - \$50M over 5 years)
 - Maine - <https://tinyurl.com/4655yacm>
 - Reducing Marine Debris at the Source: Material Replacement and Source Reduction for Single-Use Food Packaging
 - Reducing Derelict Fishing Gear in the Gulf of Maine: Educating and Empowering Boaters to be a Part of the Solution
 - A Community Education and Research Development Initiative to Develop new Materials and Uses From Ghost Traps
 - New York
 - Aquatic Microplastic Filtration Device Research and Pilot Program
 - Mitigation of Stormwater-Derived Debris: A Community-Based Approach
 - Developing Sustainable and Closed-Loop Solutions to Reduce Synthetic Fibers, Microplastics, and Nanoplastics Leakage from Laundry Systems into the Marine Environment
 - Community Science to Address Microplastic Pollution in Environmentally Underserved Watershed Communities in New Jersey and New York (NYSG is partnering through NJ Sea Grant project)
 - Coastal Resilience (minimal base funding)
 - Programs received funds for capacity building - each State program is supporting 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.
 - Programs are responding with partners on Coast Resilience Regional Challenge and Climate Ready Workforce proposals

Grant Opportunities

- Regional Ocean Energy research call in partnership with Northeast Fisheries Science Center - to open by end of 2023.
- NOAA Marine Debris Program - Fiscal Year 2024 NOAA Marine Debris Interception Technologies under the Bipartisan Infrastructure Law with Letters of Intent due November 15, 2023 - <https://marinedebris.noaa.gov/resources/funding-opportunities>

Ongoing Projects

- Ocean Renewable Energy projects
- Sea Grant Liaisons - <https://seagrants.noaa.gov/liaisons/>
 - National Sea Grant Offshore Wind Liaison - jmccann@uri.edu
 - Aquaculture Liaison, Milford Lab - zachary.gordon@uconn.edu

- Contaminants of Emerging Concern
(<https://seagrant.uconn.edu/research/contaminants-emerging-concern/>)
- Sea Grant Hard Clam Selective Breeding Collaborative
(<https://storymaps.arcgis.com/stories/3425623358164278bbe1ed7f7311a605>)

Upcoming Events

- American Lobster Initiative Collaborative Chats - November 30, 2023, stay tuned for more dates - <https://tinyurl.com/326h2r4y>
- Northeast Aquaculture Conference & Exposition (NACE) - January 10 - 12, 2024 - <https://www.maineaquaculture.org/nace/>
- American Lobster Initiative Summit - February 12, 13, 2024 - <https://tinyurl.com/mv3mpzcb>
- The 49th Maine Fishermen's Forum - February 29 - March 2, 2024 - <https://mainefishermensforum.org/>
- **Heads Up!** Advancing Climate-Resilient Fishing Communities - March 12 - 14, 2024



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 a second phase of the Gulf of Maine Seascapes project, a \$70,000 collaboration between ME, MA, and NOAA OCM. The Seascapes project identified an area of seafloor with insufficient data that Maine DMR, using IJA funding from NROC, began mapping in 2023. HCOM partners used a participatory GIS process to identify high priority areas in the Northeast for high resolution multibeam bathymetry and seafloor characterization via video and sediment collection. Lastly, HCOM members have been working with NOAA IOCM to focus various traditional (ship-based) and emerging (autonomous) platforms to map seafloor areas that are of interest to states in their ocean planning efforts.

Disposal Area Monitoring System (DAMOS)

In the past year and a half the DAMOS Program conducted monitoring surveys and mapping efforts at the Western Long Island Sound Disposal Site, Rhode Island Sound Disposal Site, Cape Cod Bay Disposal Site, Massachusetts Bay Disposal Site, and Isles of Shoals Disposal Site. Final reports were published for surveys at the Cape Arundel Disposal Site, Rhode Island Sound Disposal Site, Isles of Shoals Disposal Site, and three historic disposal sites in Downeast Maine along with a summary report on the Industrial Waste Site Restoration Project. The DAMOS Program also produced an outreach video on dredged material management (<https://www.youtube.com/watch?v=gTlIbTKVbe4>) and is developing an online mapping tool to match dredging projects with potential beneficial use sites.

Addition details are here: <https://www.nae.usace.army.mil/Missions/Disposal-Area-Monitoring-System-DAMOS/>

CT

PLANNING ASSISTANCE TO STATES PROGRAM, DREDGED MATERIAL PLACEMENT PLANNING STUDY -- The Connecticut Port Authority (CPA) and USACE are partnering, through the Planning Assistance to States (PAS) program, to conduct analysis of dredge material needs and placement sites in support of overall statewide coastal dredged material management planning. The study will build on the recommendations made in the December 2015 Long Island Sound Regional Dredged Material Management Plan.

NEW HAVEN HARBOR, NEW HAVEN AND WEST HAVEN – The Corps is designing a project to deepen the existing federal main ship channel, turning basin, and maneuvering area from a depth of -35 feet to -40 feet MLLW with incidental widening of the channel, turning basin, and bend easing. The includes various dredged material disposal alternatives including beneficial use (oyster habitat and marsh creation, historic disposal mound capping, filling seafloor borrow pit, rock reef creation) and open water placement.

Addition details and projects are here:

https://www.nae.usace.army.mil/Portals/74/docs/Media/State%20Updates/2023/CT-UpdateReport_31Jul2023.pdf?ver=uJPTQdnEaC7EDwuT5dEI5g%3d%3d

ME

JOSIAS RIVER AT PERKINS COVE, OGUNQUIT, MAINE (1st CD) – The District is working on a maintenance dredging project for Ogunquit that would involve removal of about 10,000 cubic yards of material.

SACO RIVER AND CAMP ELLIS BEACH, SACO (1st CD) – The District, in response to a request from the city of Saco and state of Maine, has completed a study of potential solutions to erosion problems at Camp Ellis Beach. The study was conducted under the authority of Section 111 of the River and Harbor Act of 1968, as amended, which provides authority for the District to address mitigation of shore damages where the Corps navigation project has contributed to an erosion problem on adjacent shorelines. USACE is currently working with the City of Saco to execute a Project Partnership Agreement so final design efforts can begin.

ROYAL RIVER, YARMOUTH (1st CD) – The District and the town of Yarmouth are investigating opportunities for ecosystem restoration and fish passage improvement in the Royal River Watershed. The study is to assess the first two dams above the head of tide on the Royal River owned by the town of Yarmouth: The Bridge Street Dam and the East Elm Street Dam.

Both dams have nonfunctioning fishways. The project has the potential to restore access to up to 135 miles of spawning habitat for blueback herring, alewives, American shad, American eel, sea run brook trout, brown trout, and sea lamprey.

Addition details and projects are here:

https://www.nae.usace.army.mil/Portals/74/docs/Media/State%20Updates/2023/ME-UpdateReport_31Jul2023.pdf?ver=ONQBqrMe9Acx-ctCCtRIEw%3d%3d

MA

BOSTON COASTAL STORM RISK MANAGEMENT FEASIBILITY STUDY – The Corps is working with the city of Boston to investigate coastal storm risk and recommend solutions for the 47 miles of Boston Harbor shoreline and the Mystic River, Neponset River, and, to a lesser extent, the Charles River. The study will consider the effects of climate change and sea level change. This study builds upon the efforts of the City’s Climate Ready Boston multi-year investigation and will focus recommendations on medium to long-term risk areas, while the City continues to move forward on short-term resilience. The study is estimated to take 6 years to complete. The city will lead a public involvement campaign to ensure the community, including those identified as Environmental Justice communities are involved in the planning process throughout the project lifecycle.

BOSTON METROPOLITAN AREA STUDY - The Corps is working with the Massachusetts Executive Office of Energy and Environmental Affairs to conduct a regional assessment of coastal flood risk to populations, property, ecosystems, and infrastructure; develop potential strategies to reduce risk; and identify the recommended risk reduction strategy(s) for the Boston metropolitan area.

CAPE COD CANAL BOURNE AND SANDWICH MAINTENANCE DREDGING – The District awarded a \$7.2 million contract to Weeks Marine to perform maintenance dredging of the Cape Cod Canal. Dredging of about 80,000 cubic yards of clean sand began in October 2023. The sand dredged from the Canal will be pumped directly onto the town of Sandwich-owned portion of Town Neck Beach in Sandwich, where it will be graded into a beach fill design.

CAPE COD CANAL, SANDWICH – The District is completing a design to place additional sand on Town Neck Beach to mitigate for the effects of the east jetties of the Cape Cod Canal, which cause the interruption of sediment transport. The project is authorized under Section 111 of the River and Harbor Act of 1968 for mitigation of shore damage due to federal navigation projects within the Corps Continuing Authorities Program. The project will mitigate the damages by taking sand from a nearshore location updrift of the jetties and placing the sand on the beach.

Addition details and projects are here:

https://www.nae.usace.army.mil/Portals/74/docs/Media/State%20Updates/2023/MA-UpdateReport_31Oct2023.pdf?ver=KdLo9kwabYVXGkPj90IXDg%3d%3d

NH

HAMPTON HARBOR – The Corps is working with the Pease Development Authority study alternatives to reduce erosion of the northern end of the middle ground bar Hampton Harbor in Seabrook and address the resulting rapid shoaling of the Seabrook anchorage and channel. A detailed study will examine the hydrodynamics of the Hampton Seabrook Estuary and the problems it creates for safe and efficient navigation.

Addition details and projects are here:

https://www.nae.usace.army.mil/Portals/74/docs/Media/State%20Updates/2023/NH-UpdateReport_30Sept2023.pdf?ver=o0Xc3oSVQxB22SGpv6RRoQ%3d%3d

RI

PROVIDENCE RIVER – The District is developing a Dredged Material Management Plan (DMMP) to evaluate dredged material disposal alternatives for the Providence River Federal Navigation Project. The DMMP will address anticipated dredging needs over the next 20 years, to include federal, state, and private dredging needs in the Providence River. Maintenance dredging was last performed between 2003 and 2005 when 3,821,000 cubic yards were removed from the federal channel. The District currently estimates that about 1,000,000 cubic yards needs to be removed to return the project to its authorized dimensions.

Addition details and projects are here:

https://www.nae.usace.army.mil/Portals/74/docs/Media/State%20Updates/2023/RI-UpdateReport_31Oct2023.pdf?ver=TX0UgairNcn1ajT1R47vBA%3d%3d

Reference

April 2023 NROC Meeting Summary

ATTENDEES

Tracey Abboud, Lobster Foundation of MA; Karen Abrams, NOAA NMFS; Seth Ackerman, USGS; Ben Algeo, University of ME/New England Ocean Cluster; Walter Barnhardt, USGS; Julianna Bauer, Subcom; Marcel Belaval, USGS; Rick Bennett, US FWS (NROC Federal Co-Chair); Peyton Benson, Maine Coastal Mapping Initiative; Lucila Bloemendaal, Boston University; Curtis Bohlen, Casco Bay Estuary Partnership; Dani Boudreau, NOAA; Leann Bullin, BOEM; Todd Burrowes, ME DMR; Todd Callaghan, MA CZM; Drew Carey, Venterra Group; Jamie Carter, NOAA; Erik Chapman, NH Sea Grant; Lou Chiarella; NOAA; David Ciochetto, RI CRMC; Kacee Coleman, Rutgers University; Julie Conroy, Friends of Belle Isle Marsh/Conroy Environmental; Mel Coté, US EPA; Fara Courtney, Outer Harbor Consulting; Steve Couture, NH DES; Sarah DeLand, Duke University; Pam DiBona, MassBays; Jenna Ducharme, RPS Group; Jynessa Dutka-Gianelli, UMass; Lisa Engler, MA CZM; Susan Farady, University of New England; Mark Finkbeiner, NOAA; Wright Frank, BOEM; Kate Frew, MA DMF; Ei Fujioka, Duke University; Katherine Gideon, RPS Group; Brent Greenfield, National Ocean Policy Coalition; Curt Griffin, UMass; William Habich, Total Energies; Jennifer Hunter, NOAA; Gavin Jackson, CT DEEP; Julia Knisel, MA CZM; Paula Kullberg, USACE; Joan LeBlanc, NROC; Kathleen Leyden, ME DMR; Julia Livermore, RI DEM; Becky Love, NOAA; Regina Lyons, US EPA; Ted Maney, Salem State University; Daniel Martin, NOAA; Meghan Massaua, Meridien Institute; Kalle Matso, Piscataqua Region Estuaries Partnership; Audrey Mayer, US FWS; Christie Mazzeo-Pfoertner, NYDOS; Chris McGuire, TNC; Elizabeth Nagel, Fisheries and Oceans Canada; Nick Napolj, NROC; Betsy Nicholson, NOAA OCM; Kevin O'Brien, CT DEEP; Larry Oliver, USACE; Cheri Patterson, NH Fish and Game; Lucy Perkins, NH DES; Durga Raja, University of NH; Marianne Randall, NOAA; Ed Reiner, US EPA; Marta Ribera, The Nature Conservancy; Mark Rousseau, MA DMF; Dan Sampson, MA CZM; Noah Sarge, Endicott College; Kaitlyn Shaw, NOAA; Emily Shumchenia, NROC; Tom Shyka, NERACOOS; Laura Singer, SAMBAS Consulting; Pete Slovinsky, ME Geological Survey; Evelyn Spencer, EPA; Alexa Sterling, EPA; Brian Thompson, CT DEEP; Timothy Timmerman, EPA; Amy Trice, NROC; Kristin Uiterwyk, Urban Harbors Institute; Prassede Vella, MassBays; Jeffrey Waldner, BOEM; Sheila Warren, US ACE; Lori Watson, Michael Baker International; Scott White, Montserrat Maritime Consulting; Chris Williams, NH Coastal Program; Jeff Willis, RI CRMC (NROC State Co-Chair); Joanna Wozniak-Brown, CT Office of Policy and Management; Gayle Zydlewski, Northeast Sea Grant Consortium

WELCOME AND INTRODUCTIONS

NROC Co-Chairs Jeff Willis, RI Coastal Resources Management Council (RI CRMC); and Rick Bennett, U.S. Fish and Wildlife Service (US FWS), welcomed meeting participants and reviewed the meeting agenda.

NROC EXECUTIVE COMMITTEE UPDATES

Jeff Willis welcomed Amy Trice, Senior Program Director, who will manage NROC's Ocean Planning Committee and Ocean and Coastal Ecosystem Health Committee. Rick Bennett provided the following summary of NROC's funding sources.

NROC Funding from Infrastructure Investment and Jobs Act

1. NOAA-NOS-OCM-2022-2007464
 - Project: *Implementation and Coordination of Coastal and Ocean Management Priorities for the Northeastern United States via the Northeast Regional Ocean Council*
 - Total Award: \$3,924,563
 - January 1, 2023 – November 30, 2023: \$1,962,144
 - December 1, 2023 – November 30, 2024: \$1,962,419

- Leads: NROC (via Coastal States Stewardship Foundation as fiscal sponsor). Projects are led by NROC Executive Committee and Coastal Hazards Resilience Committee (CHRC), Ocean and Coastal Ecosystem Health Committee (OCEH), and Ocean Planning Committee (OPC)
- Funding Period: January 2023 - November 2024
- Project Details: See pp. 19-26 for a summary of proposed projects and partners

Ocean Planning Committee

2. MA Clean Energy Center

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

3. Bureau of Ocean and Energy Management

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

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

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

5. Maine Governor’s Energy Office

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

6. Funding for Regional Wildlife Science Collaborative for Offshore Wind

(Shared with the Mid-Atlantic Regional Council on the Ocean)

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

- Power analysis for optimal design of a Passive Acoustic Monitoring network in the Atlantic Ocean – Bureau of Ocean Energy Management
- Developing a baleen whale monitoring plan for Virginia’s Wind Energy Area – Virginia Department of Environmental Quality

- Wildlife and Offshore Wind (WOW): A systems approach to research and risk assessment for offshore wind development from Maine to North Carolina – Duke University – Department of Energy, Bureau of Ocean Energy Management

FEDERAL PARTNER UPDATES

National Oceanic and Atmospheric Administration (NOAA)

Betsy Nicholson provided the following NOAA funding updates.

Regional Ocean Partnership Funding Bipartisan Infrastructure Law (BIL)

- Awarded \$15.6M in FY22 and FY23 to four Regional Ocean Partnerships (ROPs)
- Awarded \$3.6M to the IOOS regional associations for data sharing
- Tribes received separate funding to increase capacity. Applications for the next round of Tribal funds will open in May 2023.

National Defense Authorization Act

- Included authorization for ROPs with funding of \$10M through 2027. NROC has received \$2M now and will be getting an additional \$2M in May. The Act also allows new ROPs to be established. Alaska and the Caribbean have expressed interest in creating new ROPs. The next round of BIL funding may include additional applicants.

Conservation and Restoration Funding

- Announcements about how these funds will support projects to be implemented by coastal zone management programs and reserves are expected soon.
- The next round of conservation and restoration NOFOs will be coming out in May.

National Coastal Resilience Fund

- Pre-proposals were due yesterday.

Inflation Reduction Act

- An announcement is expected within six weeks. Emphasis on coastal community resilience, coalition building, blue economy, climate-ready workforce, and other priorities.

NOAA Office for Coastal Management provided the following additional updates via the briefing book.

Product and Data updates

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

Training opportunities

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

Technical Assistance

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

- OCM provided technical assistance to Dartmouth harbor to help plan for future economic analysis.

Fellow News

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

Upcoming

- Workshop to develop a strategy for benthic mapping in the NERRs scheduled for September 2023.
- Seascape 2 project is expected to start in April.

Other Updates

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

US Environmental Protection Agency (EPA)

Regina Lyons provided the following updates.

- The administration's priorities for ocean and coastal programs are environmental justice, diversity, equity and inclusion, climate change resilience, and climate change mitigation.
- National Estuary Programs are receiving non-competitive funds.
- Coastal geographic programs, including Long Island Sound and Southeast New England Program, are receiving dedicated BIL funds.
- Letters of Intent are due in May for the Coastal Watershed Grants program run by Restore America's Estuaries.
- EPA Region 1 Administrator David Cash has identified the following priority EJ areas: Chelsea, MA; New Bedford, MA; Central Falls, RI; Providence, RI; New Haven, CT; and Bridgeport, CT.
- EPA is targeting significant funding for EJ-focused priorities.

Bureau of Ocean Energy Management (BOEM)

Wright Frank provided the following updates:

- BOEM will host its third Gulf of Maine Intergovernmental Renewable Energy Task Force meeting May 10-11, 2023, in Bangor, Maine. The purpose of the meeting is to update task force members and the public on BOEM's commercial and research offshore wind energy planning activities and to discuss next steps for the Gulf of Maine, including a Call for Information and Nominations. BOEM's Gulf of Maine web page is available at: <https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine>.
- Bureau of Safety and Environmental Enforcement (BSEE) has completed its review of critical design and installation reports for the South Fork Wind project, clearing the way for the start of turbine construction

offshore Rhode Island and New York. This will be the first commercial-scale, offshore wind energy project to start turbine construction in federal waters in the US. The project is expected to be completed this summer.

- In January 2023, the Department [announced](#) the transfer of regulations governing offshore renewable energy activities — including workplace safety and environmental compliance — from BOEM to BSEE.
- BOEM published a modernization rule at the end of January. Public comments will be accepted through May 1, 2023.
- In February, BOEM [announced](#) the draft Environmental Impact Statement (DEIS) for the proposed SouthCoast Wind project offshore Massachusetts. The [DEIS was posted online](#) and BOEM published the [Notice of Availability in the Federal Register](#), initiating the formal start of a 45-day public comment period. The comment period was extended through Tuesday, April 18, 2023.

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

US Geological Survey (USGS)

Marcel Belaval provided the following updates regarding recent USGS activities:

- USGS has nine embayments in Long Island Sound that are fully instrumented to monitor continuous and discrete water quality information. Ocean acidification monitoring has recently been added to these nine embayments. New water quality monitoring was also set up in the Farm River embayment in CT.
- USGS has 600 real time and 300 discrete monitoring locations throughout the region (most within the NROC focus area).

US Fish and Wildlife Service (US FWS)

Rick Bennett provided the following updates for US FWS

- Call for proposals is currently out for the America the Beautiful grants program.
- Most US FWS BIL and IRA funding is focused on other regions.
- US FWS has prioritized efforts to restore high marsh habitat for salt marsh sparrows. Collaborative efforts are taking place throughout the region.
- US FWS has initiated conversations about how to engage NROC in efforts to protect the Northeast Canyons and Seamounts Marine National Monument.

STATE PARTNER UPDATES

Lisa Engler, MA CZM

- MA CZM is working in collaboration with Massachusetts' new Governor Maura Healey on policy and staffing transitions. The Governor's key priorities include resilience, decarbonization, and housing. MA CZM's efforts to build resilient coastal communities support these priorities.
- MA CZM looks forward to NOAA funds which will be announced soon. NOAA funding for capacity has enabled MA CZM to hire new staff for its coastal habitat program.
- Announcements for the MA Coastal Resilience Grant Program and the MA Coastal Habitat and Water Quality Grant Program are expected soon. State funding will be supplemented by federal ARPA funds.
- In terms of offshore wind, MA CZM has been involved with BOEM's Gulf of Maine Task Force and will attend the upcoming meeting in Bangor, ME. In Southern New England, MA is currently reviewing projects under development and collaborating with RI to understand and address potential impacts on natural resources and fisheries. MA is working with 10 other Atlantic coast states to establish a regional administrator to receive and distribute fisheries mitigation funds across the region. An RFP for that administration role will be issued in the coming months.
- CZM's GIS team put together an offshore wind energy viewer for the Southern New England wind energy areas showing lease areas, status of reviews, and other related details such as the location of wind turbine cable

corridors. The concept for this viewer was recommended by CZM's fisheries working group. The viewer can be accessed here:

<https://www.mass.gov/info-details/status-of-offshore-wind-lease-development-in-the-northeast-online-viewer>.

Kathleen Leyden, ME Coastal Program

- Maine has granted some state ARPA funds from the Governor's Economic Recovery Fund to the Town of Wiscasset for a salt marsh demonstration project that also advances road resiliency and clam flat restoration.
- ME will soon release its Coastwise Tidal Practitioners Guide thanks to Jamie Carter, Casco Bay Estuary Partnership, US FWS, and other partners. The Guide will include new restoration concepts for tidally restricted areas. ME is also finishing up a representative salt marsh study of ten sites in Maine that will help inform sizing criteria for culvert replacements. A pipeline of projects is being developed and several proposals were submitted to NFWF by partners this week.
- ME Coastal Program is going to Charleston to compete in NOAA's coastal fellow matching workshop. Maine's new fellow will focus on municipal technical assistance for climate resiliency.
- A working group of blue carbon researchers held a symposium earlier this year to increase understanding about the science of blue carbon in the near shore environment and how it can be used to offset greenhouse gas.
- Maine released its Offshore Wind Roadmap in February 2023. Details are available at: https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/Maine_Offshore_Wind_Roadmap_February_2023.pdf.

Steve Couture, NH DES

- Seabrook/Hampton Estuary includes the majority of salt marsh habitat in NH. Hampton is also NH's highest risk community for resiliency. Future modeling highlights significant impacts to Hampton and the extensive salt marsh system. NH DES has been working in collaboration with EPA, NOAA and the communities to identify priorities and submit proposal for funding of marsh restoration work including a \$2M proposal to the America the Beautiful program (part of a \$10M regional proposal). Another proposal for \$1.2M has been submitted to Senator Shaheen's office for baseline monitoring in the region.
- NH received \$6 million in ARPA funds for coastal watershed projects. \$2M will go to the Town of Hampton to implement stormwater work. Another \$1M is going to Seabrook for planning and mitigation associated with their wastewater treatment facility which is located within a marsh system.
- NH DES provided \$100K in funding to the City of Dover to help establish a stormwater utility.
- In terms of diversity, equity, inclusion and justice, NH DES has a \$100K contract funded via a NOAA Project of Special Merit for the Coastal Program to work with Great Bay NERR and the Great Bay Stewards to introduce concepts, conduct training and outreach, and develop plans and policies. NH DES fellow Lucy Perkins has been leading this effort.

Brian Thompson, CT DEEP

- Long Island Sound NERR is hiring the reserve manager now.
- CT has used NOAA capacity and NFWF funding to bring on additional staff.
- Federal funding is supporting planning and project development for habitat restoration, land acquisition, and beneficial reuse opportunities across the state.
- CT will be traveling to Charleston to complete for a NOAA fellow to focus on improving public access opportunities in EJ communities.
- In terms of offshore wind, CT has invested significant funds in improving a state-owned port facility in New London to support offshore wind projects. Orsted is a partner in the project which is nearing completion. CT is also working in coordination with NY on a transmission cable corridor planning project to consider vulnerabilities when identifying shared cable corridor areas.

Jeff Willis, RI CRMC

- RI CRMC is addressing key issues associated with offshore wind development. It is important for NROC, and ROPs in general, to take on the role of generating fisheries data on a regional basis to inform equitable offshore wind siting that identifies and mitigates impact on fisheries.
- NOAA capacity funds have allowed RI to partner with NERR which hired staff to help advance coastal resilience projects.
- RI passed an Act on Climate in 2021 and has been ramping up coastal resilience efforts since that time. A new coastal resilience officer position is being created at RI DEM to advance coastal resilience efforts across the state and increase engagement with municipalities. Details regarding the 2021 Act on Climate are available at: <https://climatechange.ri.gov/act-climate>

NROC PARTNER UPDATES AND OPPORTUNITIES FOR COLLABORATION

Northeast Sea Grant Consortium (NESGC)

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

Regional research and extension are focused on:

- Ocean Renewable Energy
- American Lobster Initiative

New funding from National Sea Grant Program to State Programs

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

Grant Opportunities

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

Ongoing Projects

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

Upcoming Events

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

NERACOOS

Tom Shyka provided the following updates regarding NERACOOS funding and activities.

New BIL Funded Efforts

- NERACOOS is moving forward with infrastructure improvements to replace, repair, and upgrade its ocean observing system throughout the region. This work includes upgrading buoys and other systems such as HF radar and cyberinfrastructure.
- Another IOOS program funded through BIL is focused on coastal modeling. This work which involves partnerships with NOAA, UMASS Dartmouth, and UNH to improve coastal flood forecasting by focusing on approaches, technologies, and tools to couple coastal dynamic models with hydrologic models (NOAA's National Water Model).

NOAA-funded Special Community Project

- Senator Shaheen's office authorized funding for NERACOOS, NH Sea Grant, NH DEP, PREP, Great Bay NERRs, and UNH to develop a coastal resilience collaborative that involves a suite of activities to develop a coastal resilience system. Includes funding for new observation systems (wave buoys, water level sensors, water quality sensors, and weather stations). This project will include new surveys for archaeological sites that may be impacted by climate change, habitat surveys, water quality surveys, as well as data management, analysis, and products for existing and new data.

Offshore Wind

- NERACOOS is working with developers and stakeholders to ensure that ocean observing data is accessible to inform offshore wind siting. NERACOOS is also helping to identify data gaps through involvement in RWSC, ROSA, and state initiatives. NERACOOS is also working with stakeholders to help share data from industry assets. NERACOOS is working with partners to design a coordinated observing system for the Southern New England wind energy area. The system is being designed to work around navigational safety, pollution response, fisheries management, wildlife conservation, and climate change detection.

Gulf of Maine Council

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

GOMC January 2023 Meeting

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

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

GOMC 2023 Awards Program

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

Regional Collaboration to Address Marine Debris in the Gulf of Maine

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

Since launching the program in October 2021, partners have implemented 380 coastal cleanups, removed 39,395 lbs. of debris from the environment, conducted detailed marine debris tracking, hosted a variety of outreach and awareness programs, and pursued innovative initiatives that engaged volunteers, businesses, government agencies, students, industry, and community partners in addressing marine debris throughout the Gulf of Maine. Recent efforts include outreach to thousands of boaters at the New England Boston Show in Boston to raise awareness about actions to reduce marine debris associated with recreational boating. More information about the project is available:

<https://www.gulfofmaine.org/public/marine-debris/>, or on [Twitter](#).

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

GOMC Next Meeting

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

New England Federal Partners (NEFP)

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

- Tribal engagement and environmental justice have been the key priorities over the past year. The partners hosted a Tribal summit to expand engagement.
- During the last call, there was interest in setting up a state/federal committee to expand focus on justice, equity, diversity, and inclusion. The focus of the group would be to increase understanding about how states define EJ communities, develop clear relationships and roles with federal/state agencies in identifying communities' EJ concerns, gather feedback on the effectiveness of existing EJ tools, and discuss common barriers that communities have in addressing solutions. Capacity for EJ communities is a critical issue that needs to be addressed.

- A work group on nature-based habitat infrastructure has been very active - Larry Oliver will highlight their work through a presentation later in the meeting.

REGIONAL WILDLIFE SCIENCE COLLABORATIVE (RWSC)

Emily Shumchenia provided an overview of RWSC and update on development of an integrated Science Plan for Wildlife, Habitat, and Offshore Wind Energy in the U.S. Atlantic Waters.

RWSC Background

- Cooperatively established (July 2021), led, and funded by federal agencies, states, offshore wind companies, eNGOs BOEM, NOAA, DOE, USFWS, EPA, Marine Mammal Commission; Atlantic coast states from ME to SC; Atlantic coast offshore wind lease holders and developers; 12 eNGOs (national and local)
- Mission: To collaboratively and effectively conduct and coordinate relevant, credible, and efficient regional monitoring and research of wildlife and marine ecosystems that supports the advancement of environmentally responsible and cost-efficient offshore wind power development activities in U.S. Atlantic waters.
- RWSC is co-hosted by the Northeast Regional Ocean Council and Mid-Atlantic Regional Council on the Ocean, the two Regional Ocean Partnerships (ROPs) on the Atlantic coast, who have been engaging these groups around ocean planning and management priorities for over a decade.
- Steering Committee (2022 and 2023)
 - Federal agencies: NOAA, BOEM, USFWS
 - States: Maryland, New York, Massachusetts
 - Offshore wind companies: Ørsted, Equinor, Atlantic Shores Offshore Wind
 - eNGOs: The Nature Conservancy, Natural Resources Defense Council, National Audubon Society

RWSC Roles – Science Plan and Research Support

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

- Development of Science Plan is focus of 2022-2023 Annual Work Plans
- Supported by annual contributions and in-kind support from more than 20 entities across sectors

Aligning funds to select and manage research projects

- Building capacity in 2023 and planning to continue growth
- Funds from offshore wind developers, states, federal agencies, others

RWSC Science Plan

Integrated Science Plan for Wildlife, Habitat, and Offshore Wind Energy in the U.S. Atlantic is currently under development. The plan will:

- Build on existing research priorities
- Understand ongoing and pending data collection and active research
- Identify data gaps and needs
- Standardize new data collection, facilitate data sharing, enhance data management
- Align funding

Role of Subcommittees in Developing the Plan

- Participation from science experts and all offshore wind developers w/ Atlantic interests
- Materials and meetings are public
- Forums for information sharing and coordination – data collection & research – <https://rWSC.org/database>
- Expert review of study design, data analysis methods, etc.

RWSC Science Plan details will be posted here: <https://rWSC.org/science-plan/>

RWSC Research Fund

- To be established in 2023
- Engaging with NROC, MARCO and others to develop framework and research bond for accommodating funds (\$ millions) to be contributed by the four sectors
- RFPs will be guided by the Science Plan (which reflects all four Sectors' priorities)
- Projects will be selected the RWSC Steering Committee
- Expect first RFP in fall 2023
 - Expect \$12.5 million to fund research later this year

Other RWSC Recent Accomplishments

- Agreements with more than 20 entities across sectors to support RWSC Annual Work Plan (6 states, eNGOs, developers)
- Developed collaborative funding plan for Southern New England Aerial Megafauna Surveys (January – August 2022 and September 2022 – May 2023)
- Awarded funding from BOEM and Virginia Coastal Program to lead regional and WEA-scale Passive Acoustic Monitoring (PAM) planning for large whales, coordinated by Marine Mammal Subcommittee
- Developed multi-sector PAM Data Management and Storage Best Practices reference document: <https://rwsc.org/marine-mammal-subcommittee-releases-best-practices-document/>
- Assisting USFWS and partners with Regional Motus tagging strategy and logistics
- Selected as one of 15 entities in DOE/BOEM-funded Project WOW, led by Duke University
-

Working in Collaboration with RWSC

The RWSC Steering Committee strongly encourages funders, researchers, and consultants to involve RWSC in the planning and implementation of data collection and research activities related to wildlife, environment, and offshore wind in the Atlantic Ocean. The following entities require direct RWSC coordination or involvement

- BOEM via South Fork COP Approval Letter: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/SFWF-COP-Terms-and-Conditions.pdf>
- NYSERDA via large-scale offshore wind solicitation in 2020, and in 2022; December 2021 RFP for Acoustic and Oceanographic Surveys to Support Offshore Wind Development; March 2023 Environment and Fisheries Program Opportunity Notice
- New Jersey via Research and Monitoring Initiative May 2022 RFP for Passive Acoustic Monitoring in the NY/NJ Bight: <https://dep.nj.gov/offshorewind/rmi/>

For More Information

- RWSC Fact Sheet: <https://rwsc.org/wp-content/uploads/2023/03/rwsc-fact-sheet-2023.pdf>
- Upcoming RWSC meetings, materials, Science Plan documents will be posted at <https://rwsc.org/>
- For more information, contact emily.shumchenia@gmail.com

Q & A:

- *Can developers give funding to RWSC with specific research objectives in mind or do those decisions all have to go through the Steering Committee?* Yes, that may be possible.
- *How will the 2023 RFP in the fall work?* The RFP will reference the science plan in terms of priorities to be addressed. Proposals might include expanding on existing work or new initiatives. Details regarding who is eligible to apply have not yet been determined.
- *Is it possible that the steering committee might support aerial overflights for whale observations as those have already been identified as a priority?* Yes.

- *In terms of state representation on the Steering Committee, are there plans to bring in other states?* Each sector has broad participation – all states participate in some way. Seats on the Steering Committee rotate such that those not serving now may have opportunities in the future. MA, NY and MD were elected as the first state representatives as they were involved in founding the organization.
- *Have any of the NEPs been involved with the RWSC?* As the offshore wind construction process ramps up, it is likely that interest in participation among coastal organizations will increase.
- *Does the science plan include coastal assets?* This will likely come up in the coastal habitat and ecosystem chapter. Input welcome.
- *Are Tribes involved in RWSC?* All are welcome to participate. As NROC and MARCO expand their capacity for engagement with Tribes, RWSC will leverage opportunities to increase Tribal involvement.

BENEFICIAL USES OF DREDGED MATERIAL

Larry Oliver, USACE, provided the following overview of recent USACE developments on the beneficial uses of dredged materials.

Chief of Engineers Memo

Gen. Spellmon issued a Beneficial Use Command Philosophy Notice which included the following points:

- USACE historically uses 30-40% of the sediments derived from the Navigation mission for beneficial purposes. I have established a goal for USACE to advance the practice of BUDM to 70% by the year 2030 (“70/30 Goal”).
- ...you are being called to generate productive and positive uses of dredged material... and ensure ultimate success of the BUDM program.
- If there is a need for USACE to dredge an authorized channel, the operational strategy should inherently include beneficial use placement options.
- Equally, if there is a need for sediment, gravel, or rock material to implement a project, beneficial use from dredging operations within authorized channels should be considered as a source in the planning and execution strategy.

US Army Corps of Engineers – Vision for Beneficial Use of Dredged Materials Program

The following vision was issued in conjunction with the General’s memo. In addition to the points below, USACE will seek to increase beneficial use of dredged materials in collaboration with stakeholders over the next three to five years.

Dredged material is a valuable resource

- Increased dredging investments create beneficial use of dredge material management opportunities
- Benefits the ecosystem, economy, and can effectively and efficiently deliver the USACE mission

There are opportunities to expand beneficial use within the Federal Standard

- Operational strategy should inherently include beneficial use placement options
- If material is needed to implement a project, beneficial use from dredging operations should be considered as an option in the planning and execution strategy

Partner collaboration is key to success

- Innovative pursuit, both internally and externally, with partners and stakeholders will:
 - Maximize available solutions, strategies, and tools
 - Develop and apply new approaches and technologies

Water Resources Development Act (WRDA) 20, Section 125

Congress also set forth a National Policy on the Beneficial Reuse of Dredged materials: It is the policy of the USACE to maximize the beneficial reuse, in an environmentally acceptable manner, of suitable dredged material obtained from the construction or operation and maintenance of water resources development projects. Section 125(a):

- Authorizes the Corps to use construction or operation and maintenance funds when selecting a disposal method that is not the least cost option
- The Corps will evaluate and advance all opportunities to beneficially place dredged material during preparation or reevaluation of Dredged Material Management Plans (DMMP). Plans will be shorter (5-Year).
- The Corps will evaluate and advance all requests from a non-Federal interest to consider specific beneficial placement opportunities for the Federal project
- Placement of dredged material:
 - May include a single or periodic application and
 - Shall not require operation and maintenance
- Multiple placements may be considered for the same site over several years
 - Must be justified each time
- The incremental costs of BU placement must be reasonable in relation to the benefits (environmental, hurricane and storm, or flood risk reduction)
 - Incremental costs are considered reasonable without detailed analysis when the Federal share of the placement does not exceed 25% of total Federal Standard Base Plan cost
- Aquatic ecosystem restoration (AER) or beach renourishment project funds may be used to fund the Federal costs in excess of the navigation project disposal costs when an authorized AER or beach renourishment project has capacity for the dredged material
- A Federal agency may request the placement of material on Federal land under their jurisdiction if they pay all costs for the placement that exceed the Base Plan
- For projects without a DMMP, the Corps will evaluate and advance all requests from a non-Federal interest to consider specific beneficial placement opportunities for the project.
 - The evaluation of such requests will be funded from O&M funds for the Federal navigation project.
 - The evaluation of all Section 204(d) placement opportunities will be documented in a Letter Report to be approved by the District Commander
 - The letter report will include documentation and evaluation of all beneficial use of dredged material opportunities and the reason the opportunity was selected or not
- A non-Federal interest must agree to fund 35 percent of the incremental costs of a Section 204(d) placement that exceed the Federal standard base plan costs for dredging and disposal of the Federal navigation project. Complete life cycle costs shall be used in calculating the Federal standard.

Previous guidance

New guidance builds on the prior guidance, including:

- Planning Guidance Notebook (ER 1105-2-100): It is the policy of the Corps that all dredged material management studies include an assessment of potential beneficial uses for environmental purposes including fish and wildlife habitat creation, ecosystem restoration and enhancement and/or hurricane and storm damage reduction.
- Dredging Regulation (33 CFR 337.9): Full consideration should be given to all practicable alternatives including upland, open water, beach nourishment, within banks disposal, ocean disposal, etc. Within existing policy, district engineers should also explore beneficial uses of dredged material, such as marsh establishment and dewatering techniques, in order to extend the useful life of existing disposal areas.

Program Development / Projects

Potential Ideas for Beneficial Reuse Include

- Beach Nourishment (sand should never go to an open water site)
- Island Creation/Enhancement (could be a strategy in the context of sea level rise)
- Salt Marsh Restoration (ex. CT – 70-acre salt marsh)
- Thin Layer Placement (again may be a strategy in context of sea level rise at the appropriate sites)

- Disposal Site Capping
 - Massachusetts Bay Industrial Waste Site Restoration. Covered radioactive contaminated barrels.
 - Narragansett Bay Disposal Site Capping. Considering capping a former disposal site with a clean cap to improve habitat.
 - Other ideas: upland construction uses / cobble sturgeon habitat

New England District Actions

- Program-level meetings with Federal and State partners - Work Group is part of the New England Federal Partners meetings but state partners are welcome
- Share program/project information with regional dredge teams and environmental partners (e.g., NROC, NEFP)
- Early consideration of beneficial use and involvement of environmental agencies
- USACE recently developed a Five-Year Dredging Plan with quantities, location, and type of Dredged Material
- Disposal system monitoring plan (DAMOS) identifies beneficial use opportunities and expertise tracking
 - The system includes a catalogue of potential sources, inventory of potential beneficial use sites, and a database for project planning

Early Stakeholder Involvement

- Hold an early agency coordination meeting to describe dredged material and request suggestions
- Use the databases to identify opportunities
- Provide information to make it easy for agencies to plan
- Provide Section 204 information and assist agencies in identifying funding

How to Start a Beneficial Use Study

- Ask the project manager or environmental team member or someone you know at USACE

Q & A:

- *Is there any additional funding to support the expanded focus on beneficial reuse?* No, however funds are available for dredging projects and beneficial reuse would help prioritize implementation of certain projects.
- *The USACE is focused on federal vs. private projects with this policy, correct?* Yes, however USACE will track private opportunities for beneficial reuse.
- *What are the concerns around thin layer placement of dredged materials?* In general, dredged material placement should focus on improving marshes that are already degraded vs. those that are healthy and may be capable of keeping pace with sea level rise. Aerial photos can be helpful for identifying marshes that are not keeping pace (such as heavily ditched marshes).
 - US FWS noted that they have had some success with thin layer placement informed by modeling and monitoring to assess marsh health before placement.
 - US EPA also noted that there is a need to increase consideration for land vs. ocean use of dredged materials.
 - MA CZM is conducting a study to explore near shore placement to keep the sediments in the system vs. placing them offshore.
 - USACE is also exploring strategic placement of materials to feed the marsh system.
- *Cost has been a barrier for these projects in the past. Will cost still be a driver in selecting among several beneficial use projects vs. environmental value?* For ecosystem restoration projects, USACE looks at benefits vs. costs and would select projects that optimize benefits while also being cost effective.
- *How will USACE work with USFWS on the regional salt marsh sparrow initiative?* New England Federal Partners meetings provide a forum for collaboration.
- *Is salt in dredged material a contaminant for upland disposal consideration where groundwater or surface water may be contaminated by the salt?* Yes.
- EPA noted that partners should increase focus on opportunities for upland use, including understanding the requirements for assessing material suitability or upland uses.

- *Is there interest and a role for NROC in helping to visualize information about beneficial reuse sites, etc.? Yes, USACE is interested in working with NROC to leverage tools and tracking via the Northeast Data Portal.*

SEAFLOOR MAPPING: GULF OF MAINE SEASCAPES PROJECT

Mark Finkbeiner of NOAA and Todd Callaghan of MA CZM provided the following update regarding the Gulf of Maine Seascapes Project. The Gulf of Maine Seascapes Project is coordinated by the NOAA Office for Coastal Management in collaboration with the following partners: Maine Coastal Program, Maine Geological Survey, New Hampshire Coastal Program, Center for Coastal and Ocean Mapping, Massachusetts Office of Coastal Zone Management, Tetra Tech, plus many other advisors. The project has been underway for three years. NOAA provided generous funding for the program.

Driver

Current regional ocean management issues such as offshore wind and offshore aquaculture planning in the Gulf of Maine have necessitated the need for regional maps and data sets. Project goals include:

- Develop a consistent regional geofom product to provide a framework for more detailed surveys.
- Create methods to update this product as new bathymetric information becomes available. Methods should be transferrable within the region and beyond.
- Examine the intersection of important habitat areas and proposed projects that span multiple jurisdictions.

Technical Overview of the Project

- What: Landscape scale depiction of seafloor structures, or geofoms
- Where: Gulf of Maine out 24nm from coast
- Resolution: 8-meter grid
- Source Data: BlueTopo (NOAA OCS product)
- How: Automated methods (BRESS, BPI, etc.)
- Classification: CMECS Geofoms (updated)

Processing and Data Development

- Bathymetry processing (mosaicking, confidence layer development)
- Semi-automated processing and modeling (BRESS)
- CMECS classification
- Supplemental interpretation by subject matter experts
- Data packaging
- Documentation
- Bathymetry- and Reflectivity-based Estimator of Seafloor Segments (BRESS)
<https://www.hydrooffice.org/bress/main>

Gulf of Maine Seascape Features

Oceanic features identified via semi-automated methods include rocky zones, sediment wave fields, depressions etc.

Subject Matter Expert Interpreted Layers

Experts used existing studies to further interpret layers. Stand-alone layers for manually-derived geofoms included: moraines, basins, cobble/boulder complexes, deltas, paleo-deltas, and estuarine sediment shoals.

Project Outputs

- Geomorphons (raster)
- CMECS geofoms (vector polygons)
- Bathymetric derivatives (rasters)

- Bathymetric contours (vector lines)
- Interpreted geologic features of interest in the region (vector polygons)
- Methodologies for replication (transferable in region and nationally)
- Information will be highlighted on the Northeast Data Portal

Identifying Priorities

- Completed mapping helped identify areas needing additional data, seafloor mapping, or surveys (NY through ME)
- NROC's HCOM Committee is engaging with partners to further identify needs for seafloor mapping
- HCOM created a webtool to capture interest, identify types and purposes of mapping needed, and rank potential new mapping areas in terms of priority level
- The webtool will be used through June to inform priorities
- Information will be summarized in a report to inform future funding of seafloor mapping in the region

Seascape 2 Mapping (next round of mapping)

- Expansion of the AOI to include southwestern Massachusetts waters
- Integrating new, higher quality bathymetry
- Re-processing of new areas with same thresholds
- Expect project (contracted) start spring 2023

SEAFLOOR MAPPING: LONG ISLAND SOUND SEAFLOOR MAPPING INITIATIVE

Kevin O'Brien of CT CEEP provided an overview and update regarding the Long Island Sound Seafloor Mapping Initiative.

Creation of the LIS Cable Fund (funding for seafloor mapping)

- Resulting from a June 2004 settlement between CT & NY with Cross Sound Cable Company, Northeast Utilities, and the Long Island Power Authority creating a \$6M fund for research/restoration projects in LIS
- Managed by a bi-state, multi-agency Steering Committee:
 - Led by CTDEEP, EPA LISS, NYDEC, NYDOS CT & NY SeaGrant Programs
 - Priority Goal: provide data products for resource management and infrastructure siting

Collaborative Partners

- Long Island Sound Mapping and Research Collaborative (University of CT, University of New Haven, University of RI, USGS)
- NOAA Ocean Service Collaborative
- Lamont - Doherty Earth Observatory Collaborative (Lamont-Doherty Earth Observatory, Stony Brook University, Queens College, Wesleyan University)

Priority Mapping Areas

- Mapping priorities were divided into three phases depending upon priorities
- Phase I: Pilot area in central Long Island Sound completed first
- Phase II: Eastern part of Long Island Sound. nearing completion
- Phase III: Work is beginning now

Project Mapping Goals for Each Area

- Implement technical components for a mapping program focusing on: acoustic intensity/seafloor topography, sediment texture and grain size, sedimentary environments, benthic habitats and ecology, physical environments, and data management systems

- Report on methods, analysis, results and conclusions/recommendations
- Assess implementation strategies

Integrated Habitat Map

- Results from all of the surveys were pulled together into an integrated habitat map. Acoustic features are integrated with ecological information.

Example Phase I Findings

- Ecological Processes
 - revealed consistent patterns in high diversity, persistent across seasons in simple species richness and diversity
- Geological and Ecological Connections
 - General faunal response in grain size gradient (i.e., fine to coarse) with increasing tidal stress
 - Species shift from short-lived to long-lived fragile epifaunal species, and from burrowed sediments to shell reef coverage

Phase II Mapping Goals

- Product deliverables to identify/help understand:
 - Predominant topographic, geologic, physical, and ecological characteristics
 - Distribution of characteristics
 - Physical, ecological or geological attributes/functions of an area based on various characteristics
- Data collection and processing
- Improvements to Pilot processes:
 - Communication/cohesiveness about standards and processes
 - Timelines and scheduling of inter-team dependencies
 - Earlier feedback on draft products
 - Distribution and access of final data products

Acoustic Data Gaps, Acquisition, and Integration

- Built on existing data
- Identified significant areas of gaps and lower quality data
- Infused new data with existing data

Sediment Grab and Core Locations

- Collected 75 samples during fall 2017
- Collected 77 samples during spring 2018

Surficial Chemistry

- Provided a general sense of contaminants such as highlighting surface nitrogen content

Seafloor/Habitat Characterization

- Acoustic patch types identified using eCognition

Ecological Sampling

- 40 sample blocks (1 km²)/50 sample sites: 3 random grab samples within blocks; 1 per site
- Video transects at sample blocks and sites (minimum of 3/block, 1/site)

- Transects were selected to maximize seafloor complexity and sediment transitions from one habitat type to another to delineate and validate boundaries between habitats

Ecological Characterization: Infauna

- Primarily grab sampling (some coring)
- USGS SEABOSS used for infaunal sampling

Ecological Characterization: Epifaunal

- Utilized Kraken2 ROV during Spring 2018
- Used USGS SEABOSS during Fall 2017 and Spring 2018
- ~600 images collected
- Field of View divided into 216 grid cells
- Organisms and biogenic structures identified to lowest taxon in each cell

Spatial Variability of Taxonomic Richness

- Measured taxonomic richness
- Identifies trends for high or low epifauna

Physical Oceanography

- CTD Sampling
- Utilized bottom observation platforms – salinity, currents, and bottom stress

Phase II Integrated Habitat Map

- Goal is to develop maps that integrate acoustic and other information
- Connecting with CMECS Classification

Example Phase II Findings

- Ecological Characterization
 - Total abundance, taxonomic richness and diversity were highest in the central and eastern portions
 - Ecological pattern comports with sediment composition; patterns of diversity and dominance shift across patches but draw from a similar species pool
- Physical Characterization
 - Bottom stress influences recruitment rates and benthic feeding and impacts substrate attachment and survivorship during storm events
 - Use of FVCOM for spatial interpolation was further validated, improved results from Pilot

Phase II Mapping Goals

- Communication/cohesiveness about standards and processes
 - More frequent and targeted check-ins and common reporting formats
- Timelines and scheduling of inter-team dependencies
 - Remains challenging; need to separate initial acoustic efforts from other collection phases
- Earlier feedback on draft products
 - Provides teams more ability to refine and edit as needed
- Distribution and access of final data products
 - Broadening the options to include several points of access

Phase I and II Outcomes

- Results were included in the LIS Blue Plan inventory (e.g., cold water corals, areas of seafloor complexity) available at: <https://portal.ct.gov/DEEP/Coastal-Resources/LIS-Blue-Plan/Long-Island-Sound-Blue-Plan-Home>
- A preliminary report was generated in 2021 to guide cable routing decisions in LIS, available at: https://lismap.uconn.edu/wp-content/uploads/sites/2333/2021/04/Babb-et-al_Preliminary-Ecological-Characterization-Report.pdf
- Data were provided to NYSERDA in 2022 to also guide cable routing

Phase III and Beyond

- NOAA surveys of some areas were completed in 2021
- LISCF collection and analysis, 2022-2025
- LISS Enhancement Grant/Cable Fund, 2022-2025
- NOAA Brennan Fund, 2024-2025
- Areas of general interest were identified for potential future investigation
- May be potential for a NOAA small-scale hydrographic survey
- Stakeholder feedback sessions will take place in 2023

Long Island Sound Mapping Initiative Resources

- LISS: <https://longislandsoundstudy.net/researchmonitoring/seafloor-mapping/>
 - Original website - general project info
- LDEO: <http://www.marine-geo.org/portals/lis/>
 - Original data archive and download
- UConn: <https://lismap.uconn.edu/>
 - NEW - Project resources, multi-media, info, story maps
- Coming soon – Phase 2 data added to the NY Geographic Information Gateway: <http://opdgig.dos.ny.gov/#/home>

SPECIAL SESSION: OPPORTUNITIES FOR NROC AND NATIONAL ESTUARY PROGRAMS (NEP) TO COLLABORATE ON INFRASTRUCTURE INVESTMENT AND JOBS ACT (IIJA) FUNDED PROJECTS

NROC OVERVIEW AND IIJA FUNDED PROJECTS

NROC Executive Director Nick Napoli provided an overview of NROC IIJA funded projects and activities. The following details were outlined during the meeting and via the briefing materials. NROC implements its work through the following committees.

NROC Executive Committee

- Co-Chairs: Jeff Willis (RI) and Rick Bennett (USFWS) (Also includes Committee Co-Chairs)

Coastal Hazards Resilience Committee

- Co-Chairs: Julia Knisel (MA), Gavin Jackson (CT), and Dani Boudreau (NOAA)
- Staff lead: Joan LeBlanc

Ocean and Coastal Ecosystem Health Committee

- Co-Chairs: Steve Couture (NH), Regina Lyons (EPA), and Jake Kritzer (NERACOOS)
- Staff lead: Amy Trice

Ocean Planning Committee

- Co-Chairs: Ted Diers (NH) and Lou Chiarella (NOAA)
- Staff lead: Amy Trice

NROC's current contract staff includes Nick Napoli (Executive Director), Emily Shumchenia (NE Ocean Data Portal/RWSC), Joan LeBlanc (Coastal Hazards Resilience Committee/NROC Communications), and Amy Trice (Ocean Planning Committee/Ocean and Coastal Ecosystem Health Committee). NROC intends to hire additional contract staff to support tribal engagement, project management, business management, facilitation and strategic planning, website and IT, and project-specific support. NROC may share the new tribal engagement coordinator with RWSC depending upon capacity.

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

Coastal Hazards Resilience Committee (CHR) Activities

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

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

- *Key Partners: NERACOOS, NOAA, USGS. Total Funding: \$170,000*

2: Advance the establishment of living shorelines in New England

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

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

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

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

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

implementation of living shorelines projects resulting in increased resilience of coastal communities. Project activities include:

- Host a forum/workshop with representatives from the U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service, and other federal agencies (i.e., Environmental Protection Agency, National Marine Fisheries Service) to review, consider, and discuss regulatory challenges and possible mitigation opportunities. Findings and recommendations will be documented and made available to participants and the public.
- Organize and host a workshop focused on exploring habitat tradeoffs of living shorelines projects in the context of climate change. The topic of habitat conversion and habitat tradeoffs is seen as an important design and permitting consideration limiting the appropriate expansion of living shorelines in the region and remains of high interest to the NROC Coastal Hazards and Resilience Committee. The workshop would provide a forum to discuss complicated permitting review elements such as project goals (restoration vs. erosion coastal/shoreline stabilization) and consideration of future conditions of coastal systems and projects related to climate change.
- Assess the performance and impacts of living shorelines installations and pilot projects. This effort will entail convening project managers, researchers, and experts to share/compile monitoring data and results, and discuss metrics, protocols, and best practices. Information sharing and discussion among practitioners and others will help inform practitioners of the most critical metrics to measure to determine living shoreline project implementation success, as well as positive and negative environmental impacts of these approaches.
- Conduct outreach and engagement with landowners, engineers, and communities about the benefits of living shorelines and lessons learned regarding habitat enhancement and tradeoffs, project design and monitoring. Sample outreach products may include site visits for coastal engineers for continuing education credits, meetings/webinars, and print and web materials.
- *Key Partners: TNC, USFWS, USACE, NOAA Fisheries, US EPA, and the National Estuarine Research Reserves in New England. Total Funding: \$155,000*

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

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

- *Key Partners: NOAA. Total Funding: \$27,500*

Ocean and Ecosystem Health Committee (OCEH) Activities

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

The [ISMN](#) was initiated in 2012, by NROC and NERACOOS through NROC's OCEH Committee, to facilitate and coordinate the monitoring of sentinel indicators – biodiversity, key species, and ecosystem processes and functions – and assessments of how they respond to changes in the marine environment. In 2016, the ISMN Science and Implementation Plan was finalized. Since that time, NERACOOS and NROC have worked to establish the ISMN and many other organizations have advanced ecosystem monitoring and assessment efforts. NROC and NERACOOS will produce a brief

report that summarizes progress, prioritizes activities over the next three to five years, and recommends updates to the ISMN Plan. The outputs from this report will be incorporated into NROC's five-year work plan. Other project tasks include:

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

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

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

- *Key Partners: EPA, Coastal vegetation expert work group. Total Funding: \$125,000*

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

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

- Organize and host regional workshops and webinars and develop a regional OCA monitoring plan.
- Integrate OCA data into the Northeast Ocean Data Portal and the [NERACOOS Ocean Climate Tool](#) to provide spatial and temporal perspectives of ocean acidification and change over time.
- Provide funding to accelerate implementation of the regional OCA monitoring plan.
- Initiate new monitoring activities, including microhabitat characterization in the rocky intertidal zone and utilizing fishing vessels as ships of opportunity (SOOPs).

- Support the deployment of sensors to measure OCA via commercial fishing vessels and to integrate data collected via these sensors into the NERACOOS Ocean Climate Tool. Notably, this component includes in-kind contributions of time, expertise, and monitoring platforms from the fishing fleet.
- Key Partners: NERACOOS, NECAN, WHOI, Northeastern University, Gulf of Maine Lobster Foundation. Total Funding: \$350,000.

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

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

- Key Partners: New England state coastal programs and fishery agencies, potentially NY, NOAA OCM, NOAA IOCM, BOEM, USGS, UNH CCOM, USGS Woods Hole, ME Geological Survey, and ME Governor's Energy Office, NE Ocean Data Portal Team. Total Funding: \$436,034.

Ocean Planning Committee (OPC) Activities

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

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

- Support interjurisdictional coordination through regular meetings of the OPC. Identify current or pending ocean planning, management, and regulatory actions and activities that could support those processes.
- Provide information and opportunities for coordination around specific ocean planning, regulatory, and management activities in New England.
- Finalize and communicate a set of *Best Practices for Ocean Permitting and Management Processes*.
- Partners: Tribes, New England states, BOEM, NOAA, USACE, EPA, NEFMC. Total Funding: Work conducted via contract staff support.

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

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

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

- Upgrade Portal technology, including back-end data storage/management architecture and front- end mapping functions and tools.
- Redesign and modernize Portal website.
- Produce and implement a five-year plan for consistent Portal technology and website updates.
- Advance the Gulf of Maine Portal to support offshore wind planning.
- *Key Partners: NROC members, Portal users, and key data providers such as the Marine Cadastre, NOAA, BOEM, EPA, and NERACOOS. Total Funding: \$250,000.*

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

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

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

Project activities include:

- Continue annual marine life updates, including products derived from the most recent cetacean and avian models.
- Develop new sea turtle products, leveraging soon-to-be completed modeling efforts by NOAA AMAPPS and the US Navy.
- Develop products for new species groups in response to management needs.

- Integrate data products for focal fish species from the Northeast Regional Habitat Assessment into the Portal.
- Develop innovative products showing change over time, distribution and abundance at varying scales, and integrate marine life products with the work of the ISMN and RWSC (in addition to their availability via the Portal).
- *Key Partners: NOAA Fisheries and NCCOS, BOEM, USFWS, states, NERACOOS, RWSC, Duke MGEL, NEFMC, MAFMC. Total Funding: \$250,000.*

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

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

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

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

- Organize a work group composed of state, federal, tribal, and fishery management council members to inform and review portal development.
- Continue developing VMS derived data products, integrate the fishing footprints data in the Portal, and update and maintain a library of fisheries management data products.
- Identify new data needs and, if possible, develop or integrate those products. This includes new products such as depicting the directionality of tow, heading or bearing, transit, the Loran-C navigation system, and others identified by the industry and agencies.
- Reorganize data products per industry recommendations to better depict fishing areas, vessel operations, and management for each fishery.
- *Key Partners: NOAA Fisheries, State fishery agencies, MARCO, the New England and Mid-Atlantic Fishery Management Councils, and fishing industry representatives. Total Funding: \$150,000.*

Other NROC Activities

12. Other IJIA Funded NROC Activities

- **Tribal Engagement.** Support for a tribal engagement coordinator to help identify and scope tribal priorities, expand opportunities and support for tribal engagement in NROC committees and projects, reimbursement for

Tribal travel to NROC and related meetings in the region, and provide assistance for fundraising and proposal development for tribal priorities.

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

NEP IJA FUNDED PROJECTS

Regina Lyons, EPA provided a regional overview of NEP IJA funded projects.

National Estuary Program Overview

- 28 Nation-wide, 6 in New England:
 - Casco Bay Estuaries Partnership (ME)
 - Piscataqua Region Estuaries Partnership (NH + ME)
 - Massachusetts Bays National Estuary Partnership (MA)
 - Buzzards Bay National Estuary Program (MA)
 - Narragansett Bay Estuary Program (RI + MA)
 - Long Island Sound Study (CT, NY + watershed)
- Non-regulatory but support other CWA programs
- NEP structure: NEP Host Organization, NEP Director and staff, Management Committee, sub-committees (ex. monitoring, finance, outreach and communication, finance/governance), Regional EPA Coordinator, EPA HQ Coordinator
- Comprehensive Conservation Management Plans (CCMPs): developed by NEP and serve as the long-term plan to guide NEP's activities. Also produce "State of the Estuary/Bay" reports
- Program evaluation every five years. Annual reporting metrics include \$ leveraged and habitat acres protected or restored.

NEP Funding

- Funded by annual non-competitive Sec 320 cooperative agreements based on yearly appropriation amount (FY 23 \$850,000 per NEP but has ranged from \$850,000-\$518,000). 1:1 match required.
- Currently receiving an additional \$909,800 per year under BIL
- National Funding guidance for annual cooperative agreements updated every few years. BIL guidance also produced (equity strategy required for match waiver).
- Additional Tech assistance or funding through other EPA grant programs/priorities (ex. Climate Ready Estuaries Program, Trash Free Waters, National RAE competitive grant program)
- 40% of funds need to focus on Environmental Justice

HIGHLIGHTS FROM NEPs IN THE REGION

Buzzards Bay National Estuary Program

Regina Lyons, US EPA provided an update for the Buzzards Bay NEP.

- Hosted by MA CZM | Program Director: Joe Costa, joe.costa@state.ma.us
- Will be announcing first round of IJA municipal grants very soon.

- The grants total \$808,500 and are focused on stormwater and wastewater infrastructure pollution reduction. This represents about 90% of Year 1 IJJA/ BIL allotment.
- The other 10% of IJJA funds is directed toward a municipal stormwater collaborative to map and monitor stormwater networks and discharges and investigate illicit connections to meet MS4 permits.
- Year 2 budget will likely support this same level of municipal initiatives.
- About 43% of year 1 funding supports BBNEP defined disadvantaged communities.

Buzzards Bay Watershed Infrastructure and CCMP Support Grant Program – Round 1 (FY23)

- Eligible projects include:
 - Feasibility and design of stormwater facilities to treat discharges to impaired surface waters.
 - Construction of stormwater facilities to treat discharges affecting surface waters.
 - Support for tasks to achieve Municipal Separate Storm Sewer System (MS4) compliance (other than required routine maintenance).
 - Feasibility studies and conceptual plans to enhance nitrogen removal from municipal wastewater treatment facilities using innovative or unconventional approaches.
 - Restoration of wetlands, habitat, and migratory fish passage.
 - Construction of a boat pump-out facility in a municipality or harbor when none exists.
 - Creation of online reporting systems for tracking of operation, maintenance, and monitoring of innovative and alternative septic systems.
 - Projects that, through direct action, mitigate or restore coastal waters, coastal resources, freshwaters, or freshwater resources impaired by pollutant loading.
 - Land, open space, or habitat preservation, acquisition, or protection.
 - Other activities in support of the CCMP and compatible with BIL funding.
- Round 1 of the grant program closed on February 1 with eight towns submitting proposals totaling over \$2 million.

Buzzards Bay Stormwater Collaborative

- Launched in 2016, as a partnership between the Buzzards Bay National Estuary Program (NEP), the Buzzards Bay Action Committee (BBAC), and five municipal public works departments (Dartmouth, Acushnet, Fairhaven, Mattapoisett, and Wareham).
- The purpose is to:
 - map stormwater infrastructure and monitor both wet and dry weather discharges (if present).
 - identify and precisely locate all stormwater discharges along the coast (both in and out of MS4 areas), and define the stormwater network connections to those discharge pipes and structures.
 - identify failing structures such as catch basins filled with sand, damaged structures, or areas that flood during storms.

Narragansett Bay National Estuary Program

Regina Lyons, US EPA provided an update for the Narragansett Bay NEP.

- Encompasses the full watershed including portions of RI and MA.
- Hosted by Roger Williams University | Program Director: Mike Gerel, mike.gerel@nbep.org
- First two years of BIL funding will be focused on building a pipeline of water quality/habitat/resilience projects
- NBEP undertook extensive engagement (including with indigenous communities) with community-based organizations with the expertise and agency to develop projects in our notably underserved/urbanized study area.

Summary of Narragansett Bay Estuary Program FY22 BIL Workplan

- Projects that reduce pollution, restore habitat, improve climate resilience, and advance environmental equity.

- Racial and Environmental Justice Committee - convene in Port and Olneyville neighborhoods of Providence, RI to advance projects in support of the Providence Climate Justice Plan.
- Southeastern Regional Planning and Economic Development District – support staff to help advance projects in the Taunton River watershed in MA that support nature-based solutions and climate resilience.
- Old Colony Planning Council – support staff in Brockton, MA area to advance water quality and water supply resilience projects.
- Groundwork Southcoast – support staff to lead expansion into Fall River, MA to address heat islands, extreme flooding, resilience, and equity.
- Save the Bay – new staff to collaborate with communities in the Narragansett Watershed (RI and MA) to advance water quality, habitat and resilience projects.
- Design and planning for priority habitat connectivity projects.
 - Wood-Pawcatuck Watershed Association – support staff to ground-truth existing data, identify priority obstructions, and complete designs that achieve free-flowing cold-water streams in the watershed’s headwaters in RI.
 - Nature Conservancy of RI – hire an engineering consultant to complete conceptual designs for fish passage on the lower Blackstone River in RI to connect Narragansett Bay with Lonsdale Marsh.
- Community education on the value of a healthy Blackstone River.
 - Blackstone River Watershed Council/Friends of the Blackstone – engage communities via two-way learning activities that emphasize ecological and social value of a healthy and connected Blackstone River in RI.

Piscataqua Region Estuaries Partnership

Executive Director Kalle Matso provided the following highlights regarding PREP’s activities:

- Hampton/Seabrook Estuary faces numerous issues including sea level rise and associated loss of salt marsh systems. Recently, more attention and focus has been shifting to address issues in this watershed which had been neglected in the past. BIL funding is helping to jumpstart efforts in this regard. On the ground efforts are being conducted in partnership with the Seabrook/Hampton Estuary Alliance.
- More attention over the years has been directed to the Great Bay Estuary which has more fringing marsh systems. Over the years, the Great Bay Estuary has lost over 50 percent of sea grass. In terms of biomass, the estuary has lost between 60 to 70 percent of biomass for sea grass. Identifying the source of the problem has been challenging. Nitrogen is a key issue but may not be the only factor. Great Bay Estuary has also lost over 80 percent of oysters since 1993 when there were over 6 million. The resource has been recovering more recently.
- Increased base funding of \$900K along with new BIL funds will support the following efforts.
 - PREP will increase engagement with upper watershed communities that are part of the ecosystem but have not been as involved. PREP will work with these upper watershed communities to address environmental issues associated with lakes, ponds, and other freshwater resources. Funding will increase capacity for science and communications. PREP will also hire a coastal resilience coordinator.
 - State of Estuaries conference in June will highlight 21 watershed indicators. Over the next five-years, PREP will be looking toward a more streamlined index or Report Card to highlight conditions.
 - BIL funds will focus on scientific questions over the next two years, understanding that funding will drop off after this 5-year funding period. Research conducted now will increase understanding about variability in the system to inform future monitoring and restoration work.

Q & A

- *Are there locations where you would like to deploy new water level sensors?* Yes, NERACOOS is working with NH DES to identify new locations in NH with a focus on identifying the right technology and ensuring that operational capacity is in place for any new location.

Long Island Sound Study

Evelyn Spencer, EPA provided highlights regarding the Long Island Sound Study which operates within and is staffed by EPA. LIS Study is both a National Estuary Program and Geo Program.

Long Island Sound Study:

- 1985 – EPA, New York, and Connecticut form the LISS driven by principles of the Clean Water Act.
- 1994 – LISS developed a Comprehensive Conservation Management Plan.
 - Clean Waters and Healthy Watersheds
 - Thriving Habitats and Abundant Wildlife
 - Sustainable and Resilient Communities
 - Sound Science and Inclusive Management
- 2001 – EPA approved Connecticut’s and New York’s nitrogen strategy, called a Total Maximum Daily Load (TMDL).
- 2021 – LISS received an additional \$21.2 million per year over five years (2022-2026) through the Bipartisan Infrastructure Law.

FY23 LISS Clean Water Act funding of \$62,759,000 includes the following sources:

- CWA Section 119 Long Island Sound Geographic Program
- CWA Section 320 National Estuary Program for LIS
- CWA 119 Infrastructure Funding (BIL)
- CWA 320 Infrastructure Funding (BIL)

Long Island Sound Projects

- NYS Long Island Sound Watershed Septic System Replacement. Project Organizer: New York State Department of Environmental Conservation (NYSDEC).
 - FY 22 Grant amount: \$2,250,000
 - FY 23 Grant amount: \$3,000,000
- New Vessel to Supplement Use of RV John Dempsey to Enhance the Future of the Long Island Sound Monitoring Program. Project Organizer: CT DEEP.
 - FY 22 Grant amount: \$1,533,284
- NYS Water Quality Improvement Projects
Project Organizer: NYSDEC
 - FY 22 Grant amount: \$2,250,000
 - FY 23 Grant amount: \$3,000,000
- Fish Passage Restoration on the Pequabuck River — Middle Street Pond Dam Removal. Project Organizer: CT DEEP.
 - FY 22 Grant amount: \$1,600,000
- Strong Pond Dam Removal. Project Organizer: CT DEEP.
 - FY 22 Grant amount: \$250,000
- Living Shorelines Implementation for Identified and Emergent Sites. Project Organizer: CT DEEP.
 - FY 22 Grant amount: \$1,300,000
- LiDAR and Multi-spectral Imaging for Baseline Saltmarsh Monitoring. Project Organizer: CT DEEP.
 - FY 22 Grant amount: \$1,800,000
- Support for Stewardship Land Acquisition. Project Organizer: NYSDEC
 - FY 22 Grant amount: \$2,909,800
 - FY 23 Grant Amount: \$2,500,000

- Nitrogen Reduction Infrastructure Upgrades. Project Organizer: Massachusetts Department of Environmental Protection (MassDEP).
 - FY 22 Grant amount: \$4,500,000
 - FY 23 Grant amount: \$4,000,000
- Long Island Sound Community Impact Program. Project Organizer: Restore America’s Estuaries.
 - FY 22 Grant amount: \$2,364,526 (with plans to add funding in future years)
- Environmental Justice and Underserved Community Support—Addressing Language Barriers with Coastal Anglers. Project Organizer: CT DEEP.
 - FY 22 Grant amount: \$62,632

Q & A:

- *What was the process for wastewater treatment plant upgrades?* These were implemented through the Massachusetts Department of Environmental Protection which identified treatment plants as areas of concern. These facilities were out of compliance and the communities could not afford to implement the necessary improvements.

Massachusetts Bays National Estuary Partnership

Director Pam DiBona provided an overview of MassBays recent activities. Pam noted that MassBays includes three bays (Cape Cod Bay, Massachusetts Bay, and Ipswich Bay), 1,100 miles of coastline, 50 coastal cities and towns, and 44 delineated embayments, in a 7,000 square-mile watershed. MassBays is hosted by UMass Boston with funding provided by EPA. MassBays’ priorities are informed by both local and regional stakeholders and experts. Embayments have been characterized according to the following ecotypes to set targets for habitat extent and condition for eel grass, salt marshes, and tidal flats:

- Protected – more sediment available
- Protected – less sediment available
- Exposed – more sediment available
- Exposed – less sediment available

MassBays works with the following five regions through regional service providers and coordinators.

- Merrimack Valley Planning Commission
- Salem Sound Coastwatch
- Northeastern Marine Science Center
- North and South Rivers Watershed Association
- Association to Preserve Cape Cod

Bipartisan Infrastructure Law - MassBays Spending Goals

- Implement Bays-wide, high-impact projects aligned with the CCMP
 - Pilot and proof-of-concept for eelgrass restoration via seeding (2023- 2025)
 - Deploy near-shore monitoring systems (2023-2028)
 - Prioritize tide gates for restoration/repair (2023-2024), contract for municipal outreach and assistance (2024-2029)
- Complement and augment investments by partners
 - Assess local needs identified via Municipal Vulnerability Preparedness program (2023)
 - Provide capacity building and technical support to local partners to facilitate federal- and state- funded project implementation (2022-2029)
- Support local actions aligned with funding guidance, especially Justice40
 - Healthy Estuaries Grants (2023-2028)

- Healthy Estuaries Implementation Grants (2022-2027)
 - Malden stormwater management upgrades (with Mystic River Watershed Association) (2022-2024)
 - Merrimack River Tributaries watershed plans (with Merrimack River Watershed Council) (2022-2025)
- Leverage BIL funds into longer-term sustained funding
 - Establish MassBays Fellowship as a means toward increasing diversity, equity, and inclusion in coastal careers
 - Program funds over seven years in consultation with Finance Subcommittee

Casco Bay Estuary Partnership

Executive Director Curtis Bohlen provided an overview of the Casco Bay Estuary Partnership's Five-Year Plan for BIL Funds. BIL funds were targeted to the following four strategic priorities: 1) Unmet Needs, 2) Environmental Justice and Equity, 3) Increasing Capacity, and 4) Climate Change.

- Projects to Address Unmet Needs.
 - Casco Bay Regional Ocean Model.
 - High resolution ocean model
 - Saco Bay to Boothbay Daily three-day forecast - ocean height, wave height and period, currents (3-D, Surface and at depth), salinity and temperature (surface and at depth)
 - Predictions about every 10 meters inshore
 - Original motivation was for water quality
- Projects to Address Lack of Municipal Capacity
 - Community Planning and Assistance
 - Resilience Project Implementation and Coordination
 - Watershed Planning
 - Onsite Wastewater Program
- Projects to Address Climate Change
 - Linking habitat and community investments
 - Climate change as inescapable background of everything
- Advancing Environmental Justice and Equity
 - Habitat Protection
 - Significant increase in funding for habitat protection grants thanks to BIL funds
 - Equity analysis raises questions of purpose of these grants
 - Focus on communities with limited access to open space
 - Institutional Efforts (Core NEP funds)

Q & A / Comments:

- Casco Bay NEP is interested in water level sensors in the region.
- OA monitoring is facing operational challenges with equipment.

Discussion/comments among NEPs

- In Massachusetts, home-rule means that efforts need to take place within each town limiting the opportunity to advance efforts.
- Many federal funding sources are looking for \$200K+ projects which require regional coordination as most local projects are smaller than that. Taking advantage of these funding opportunities requires increased capacity for regional collaboration.

- Casco Bay model is being built now and will adapt over time, bringing in data from other sources such as the State of Maine. This community-based ocean modeling also helps build support for longer-term funding to promote sustainability when BIL funds are no longer available.
- NERACOOS is involved in efforts to enhance and develop new high-resolution models.
- NOAA works with SNEP to identify opportunities to circulate projects that were not funded by one source of funding so that they can be considered elsewhere. Additional networking and collaboration are needed to expand upon this effort.

NROC MEETING WRAP/UP AND NEXT STEPS

Nick Napoli noted that NROC Committees looks forward to working with partners throughout the region to launch new IJA-funded projects. Rick Bennett and Jeff Willis thanked participants for joining the meeting and noted that NROC's next full meeting will take place during Fall 2023.

NROC meeting adjourned at approximately 3:30 PM

Meeting summary prepared by Joan LeBlanc, NROC

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