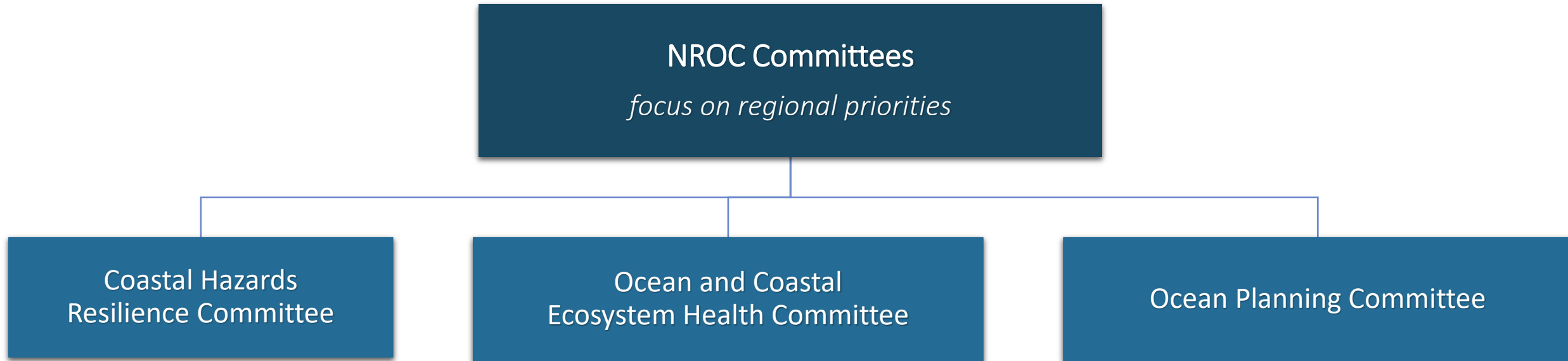


OCEAN AND COASTAL ECOSYSTEM HEALTH COMMITTEE

NOVEMBER 30 2023



OCEAN AND COASTAL ECOSYSTEM HEALTH COMMITTEE WORKPLAN

OCEH Priority Actions

1. Strengthen Regional Coordination, Governance, and Communication

- Regularly Convene OCEH Meetings
- Establish Workgroups or Subcommittees to Support Regional Restoration, Conservation, and Resilience of Ocean and Coastal Habitats
- Provide Guidance on Data Standards and Visualization to Promote Broader Regional Utility
- Work to Advance Bipartisan Infrastructure Law/Infrastructure Investment and Jobs Act Projects

OCEAN AND COASTAL ECOSYSTEM HEALTH COMMITTEE WORKPLAN

2. Continue to Update Monitoring Plans and Assessments and Link Research and Monitoring to Management Decision Making

- Blue Carbon
- Marsh Migration
- Integrated Sentinel Monitoring Network
- Ocean Acidification
- Emerging Topics
- Identify Opportunities to Ensure OCEH Tools, Assessments, and Best Practices are Incorporated into State and Local Decision Making

3. Enhance Data Collection, Integration, and Dissemination

- Habitat Classification and Ocean Mapping
- Coastal Mapping

OCEAN ACIDIFICATION

NECAN Monitoring Priorities in the Northeast Workshop



Webinar Series

- Current Assessments
- Climate
- Modeling
- Biological Impacts
- New Technologies/Sensors/Methods
- User Needs & Products
- Indigenous Perspectives & Concerns
- Rapid Response

2023 Webinar Series



Workshop

- Nov 1, 2, & 3rd
- Goal: To identify actionable monitoring priorities in the region that can inform the Monitoring Plan
- 3 Breakout sessions
- A workshop report is being generated and made available by the end of the month.

NECAN Monitoring Priorities in the Northeast

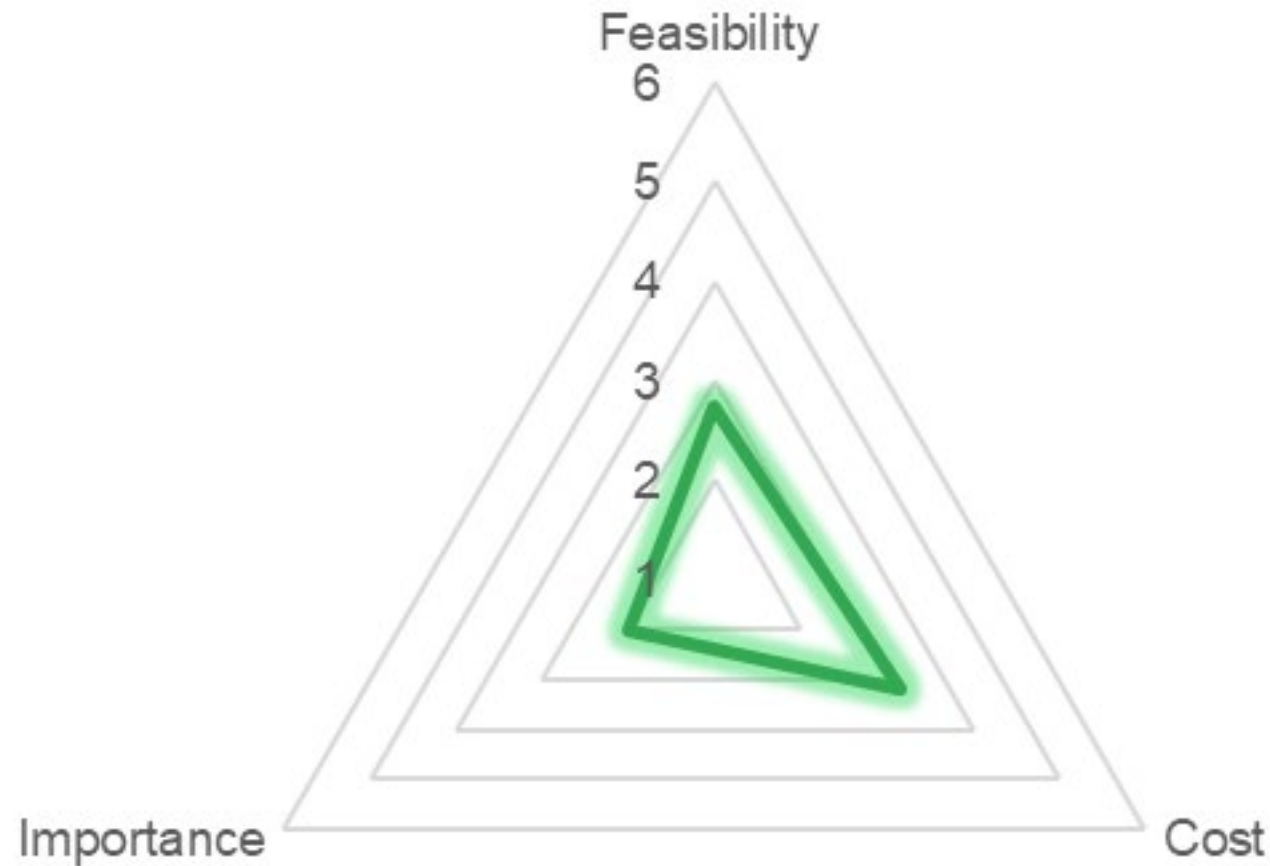
Workshop Report



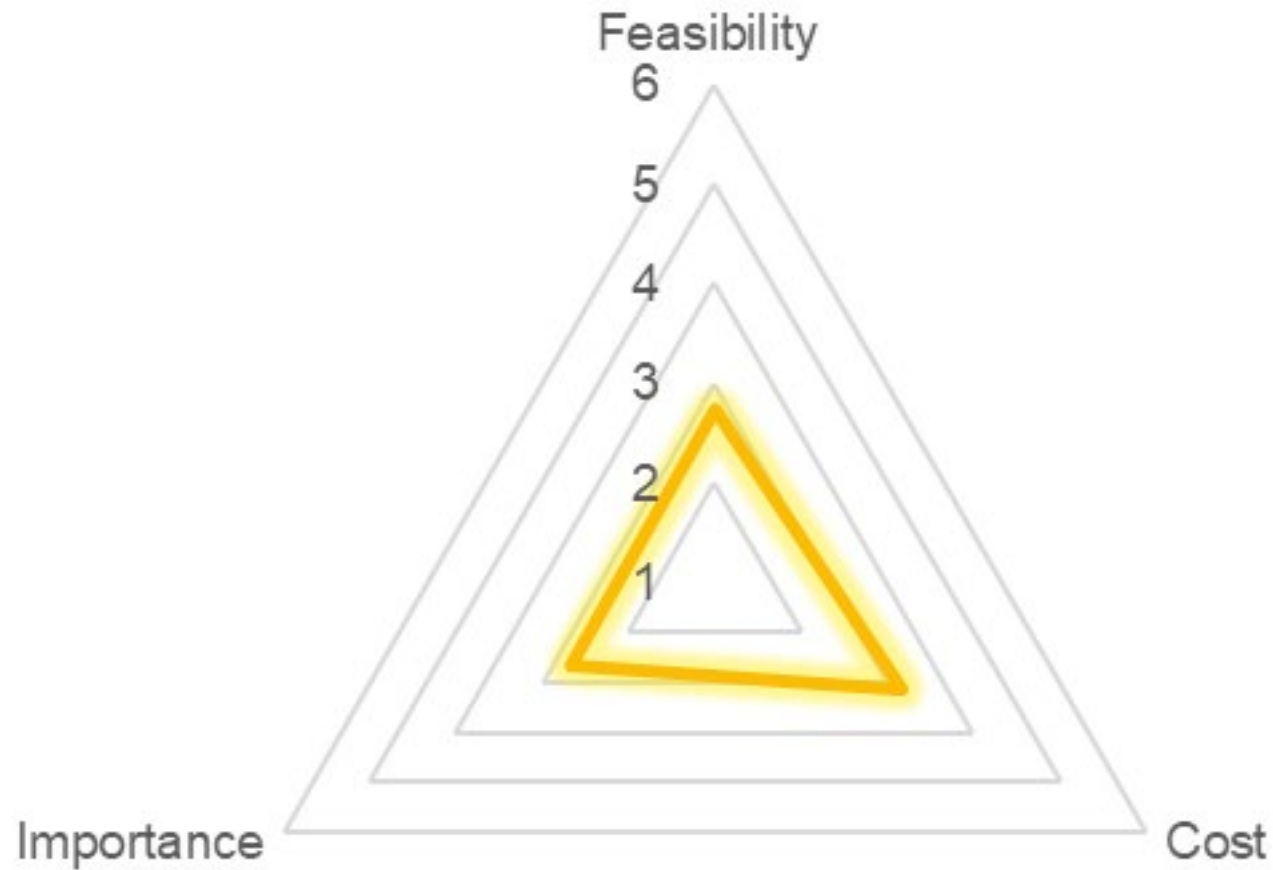
NECAN Workshop: Preliminary Takeaways



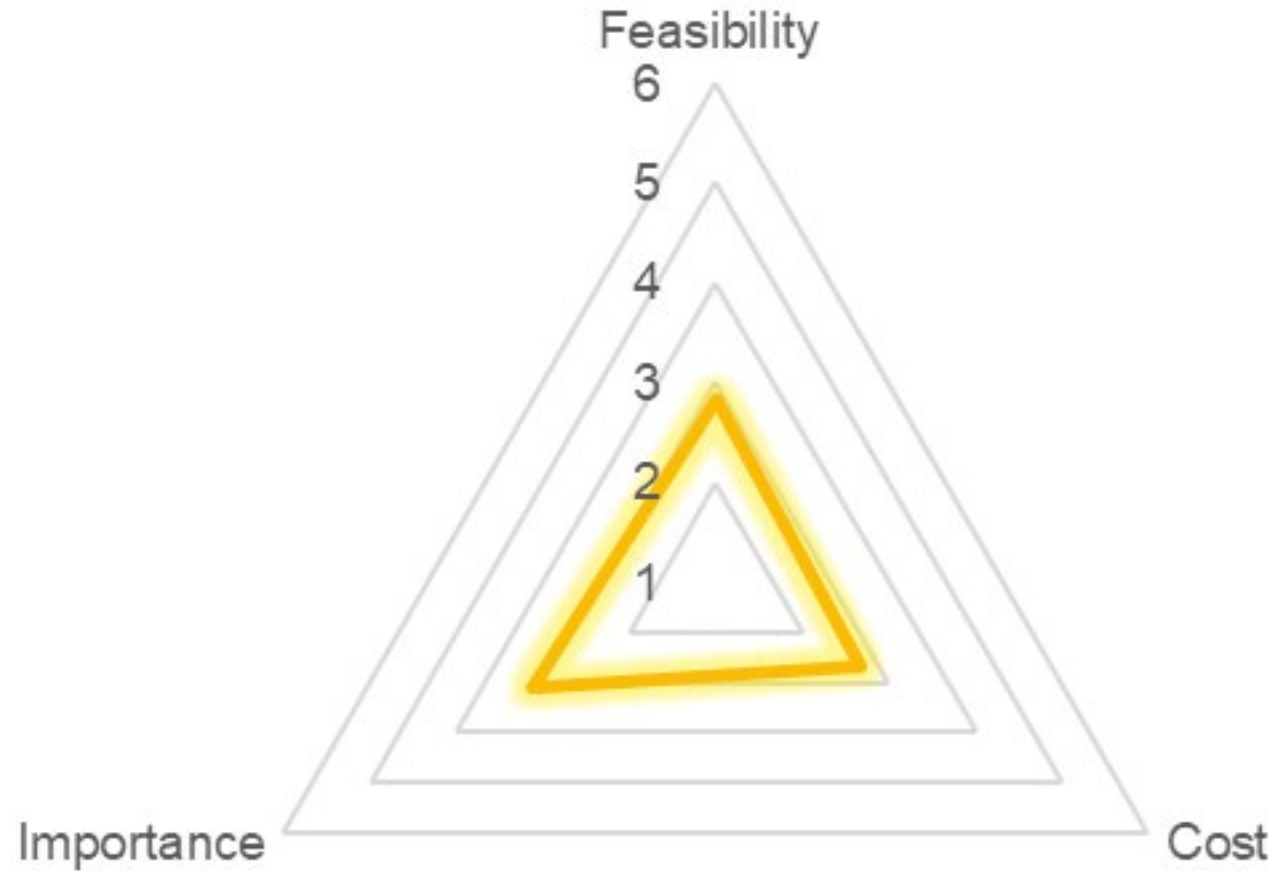
Improve spatial and temporal scale of monitoring co-located OA variables and biological measurements to better resolve variability of acidification dynamics in concert with biological processes (*overall avg score: 2.63*)



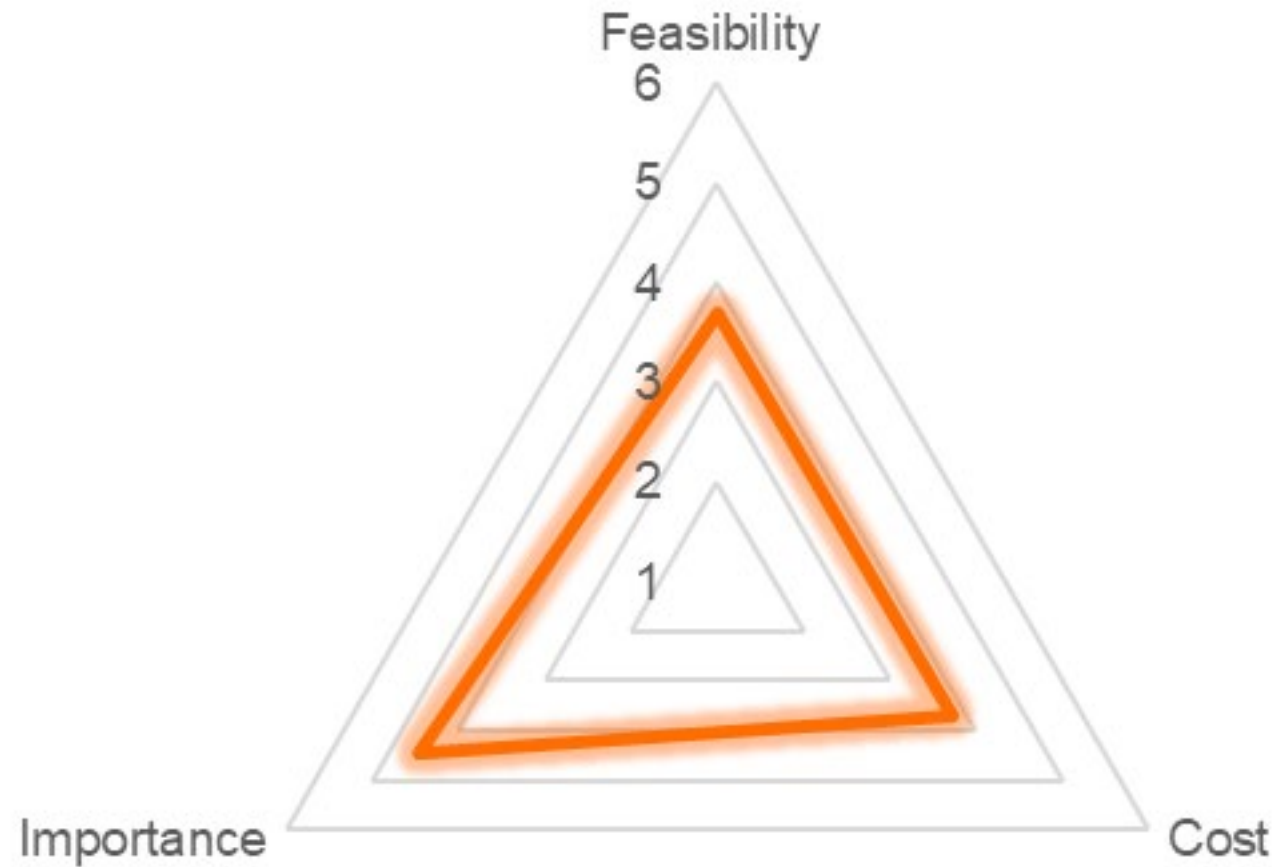
Increase subsurface monitoring to understand how conditions vary at depth
(overall avg score 2.86)



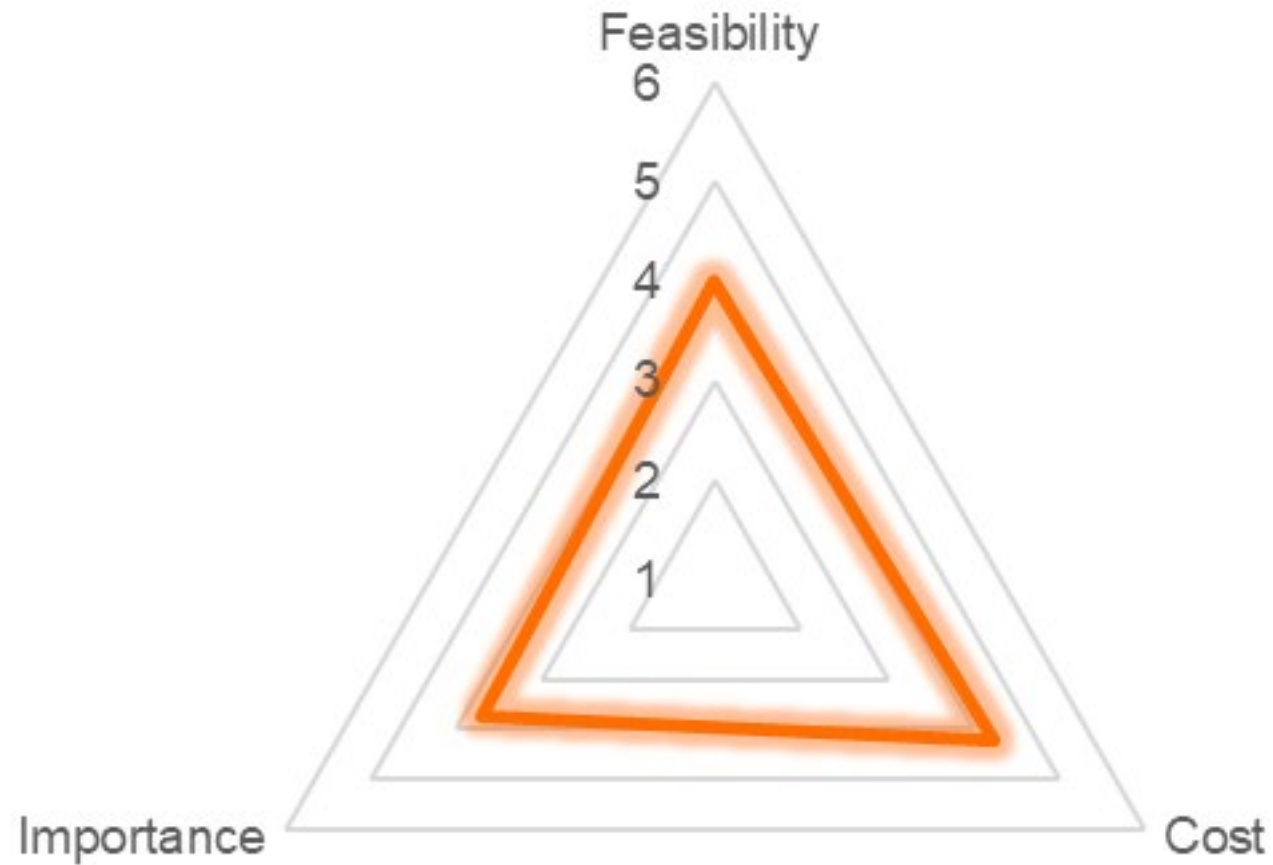
Increase the number of high-frequency monitoring assets that measure at least two of four carbon parameters
(overall avg score 2.87)



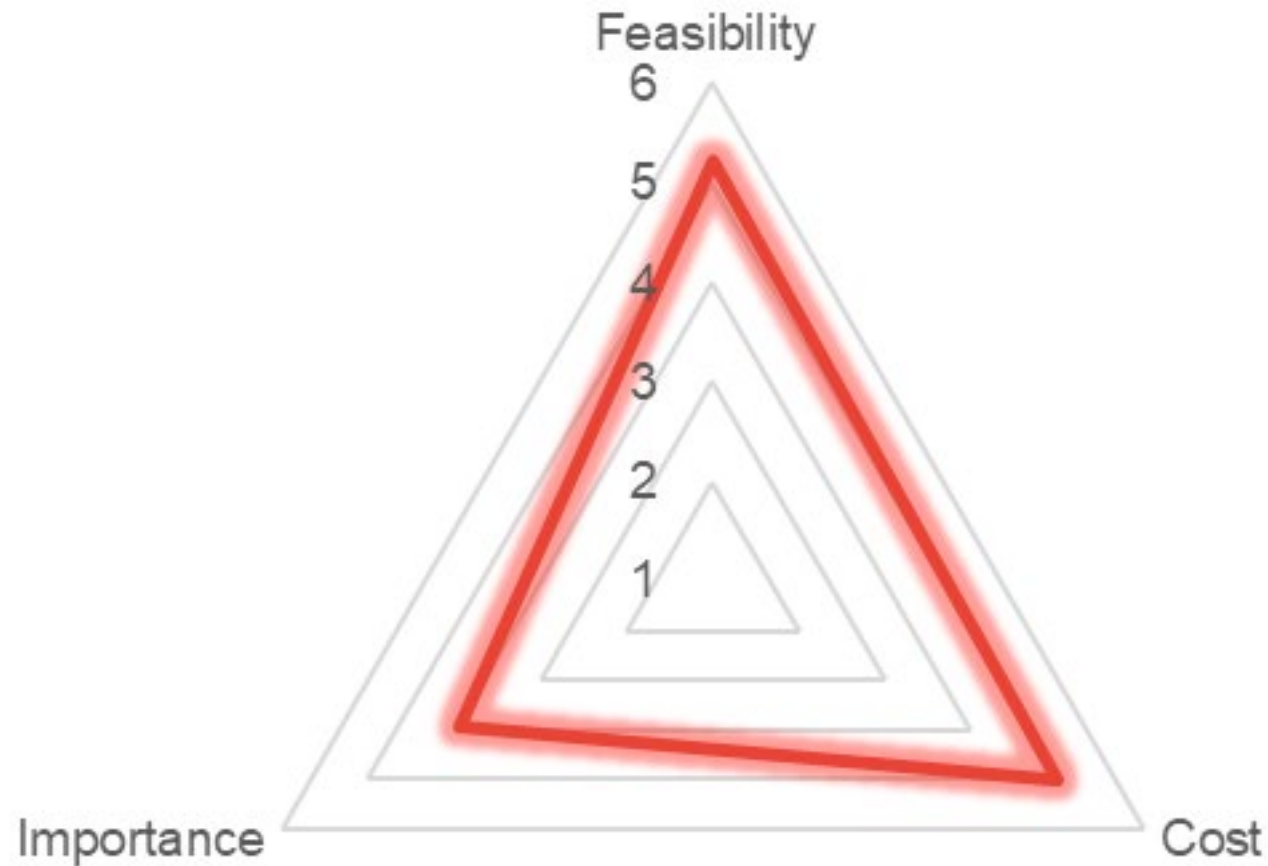
Better spatial coverage of climate-quality observations
(overall avg score 3.95)



Increase near real time and rapid response observing capacity to capture
episodic events
(overall avg score 3.98)



Fluxes and rates that would help parameterize and constrain regional modeling efforts to understand past conditions and project future trends
(overall avg score 4.72)



Next Steps

- Workshop Report (Early Dec)
- Creation of the Monitoring Plan (Early 2024)



NECAN

Monitoring Priorities in the Northeast



austin@neracoos.org

OCEAN ACIDIFICATION 2024 DECISION PRIORITIES

- A. Developing spatial map(s) of where long-term climate monitoring and ongoing biological monitoring are occurring for the Northeast Ocean Data Portal.
- B. Partnering with commercial fishermen to advance winter ocean acidification monitoring to gain additional seasonal data
- C. Developing multiple stressor indices for a particular species that includes OA variables (e.g. T, S, O₂, Ω , pCO₂, HABs)

OCEAN ACIDIFICATION 2024 DECISION PRIORITY

- 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
- F. Funding sensor deployment and supporting technical assistance with potentially interested Tribes
- G. Identifying potentially interested industries for sensor deployment
- H. Identifying a roving OA monitoring suite of assets that could be relocated and deployed on relatively short notice to areas of concern

BLUE CARBON

BLUE CARBON

2024 Priorities


- Update coastal vegetation data products
- Update blue carbon heatmaps
- Retrospective analysis on geographic subset
- Support data collection:
 - Additional NAIP groundtruth
 - Eelgrass cores in coarse sed
 - Other existing field efforts

NROC IIJA Proposal 2025-2027

- Continue to update coastal vegetation data products
- Continue to update blue carbon heatmaps
- Identify vulnerable blue carbon reservoirs and those with restoration opportunities
- Develop Portal interface that provides more context / key methods and limitations of regional blue carbon assessment and allows users to create custom queries of blue carbon stock quantities at different scales

HABITAT CLASSIFICATION AND OCEAN MAPPING SUBCOMMITTEE

Seafloor Mapping Needs Prioritization Participatory GIS Process

**NROC**
Northeast Regional
Ocean Council

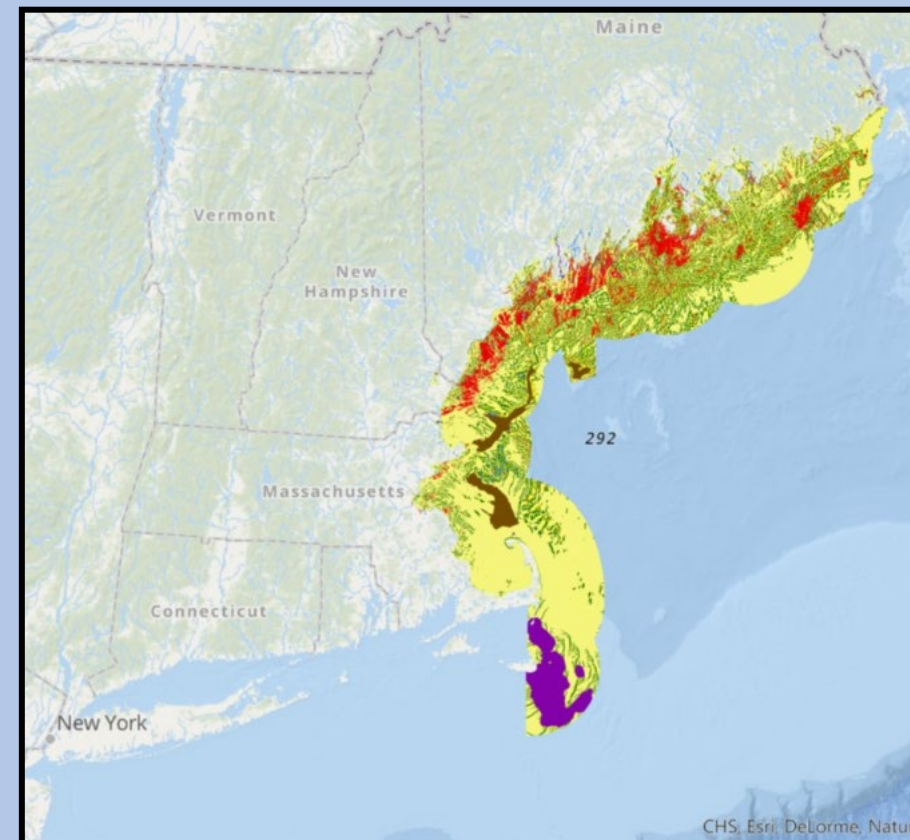
Regional Solutions for
New England's Coastal
and Ocean Future

HomeAboutCommitteesData Portal

<https://www.northeastoceancouncil.org/committees/ocean-and-coastal-ecosystem-health/hcom/>

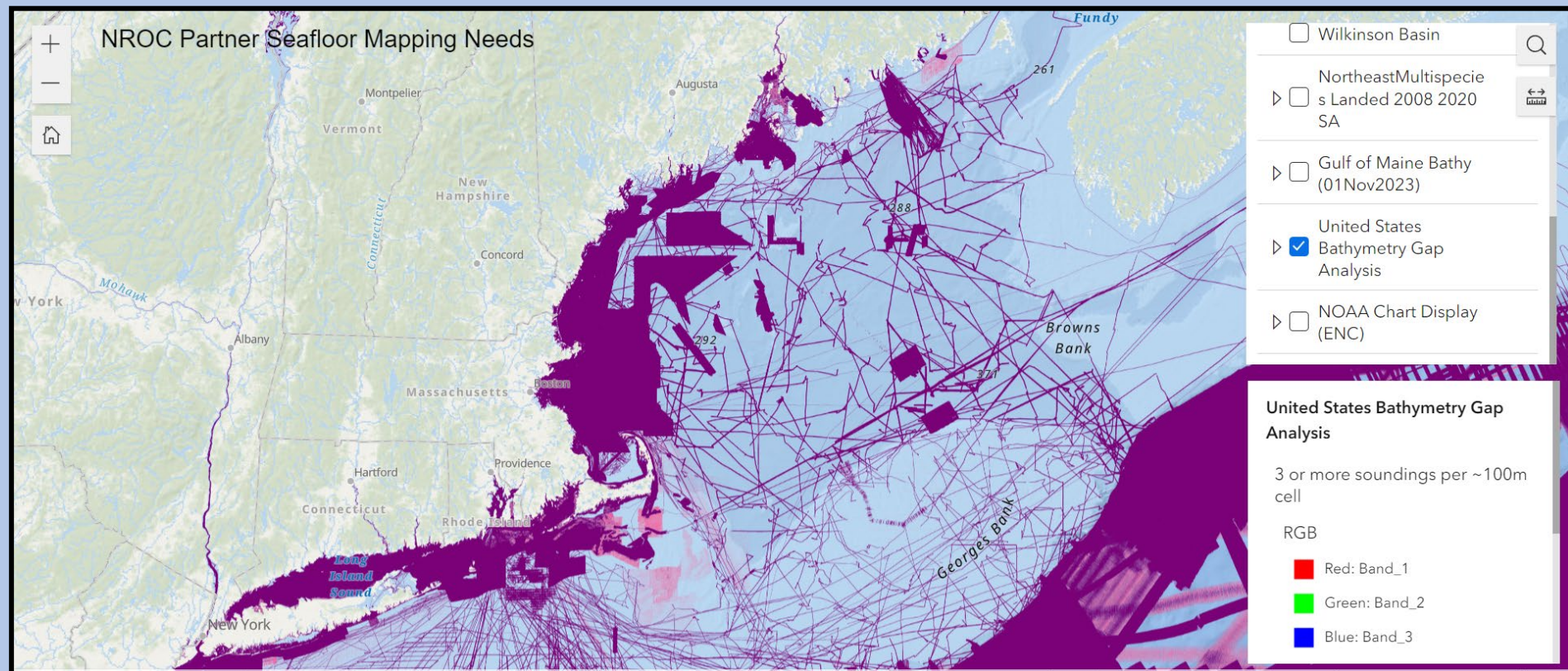
Background

- **MA/ME/NOAA Seascapes Project** identified major gaps in bathymetry in GOM
- **MA/ME identified a priority area** for NROC Year 1 BIL funding
- **HCOM leadership decided to expand gaps identification project** to entire NROC area



HCOM Goal:

- Identify areas within the NROC region that need seafloor data
- Identify partnerships
- Identify funding to fill those gaps



When? June 2023

Who? Six states, seven federal agencies, and three non-governmental organizations

State: NY DOS, CT DEEP, RI CRMC, MA CZM, NH DES, ME DMR

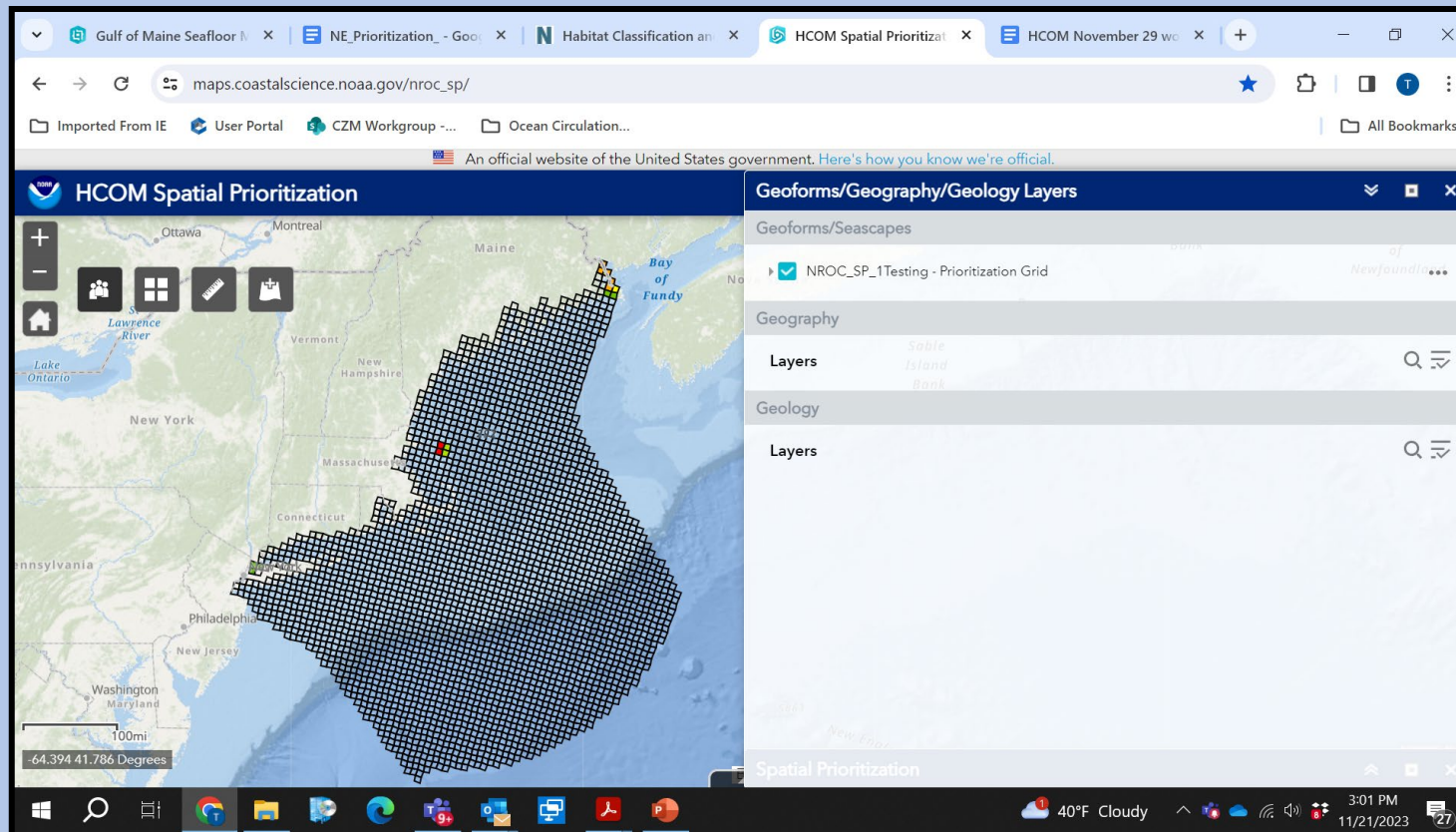
eNGO: GMRI, TNC, NEFMC*

Federal: SBNMS, NPS, USACE, USCG, USEPA, USFWS, USGS

With **significant assistance** from NOAA NCCOS, OCM
--NOAA OCM, NMFS, FSC and BOEM did not participate in site selection

What Did We Do?

- Each Partner allocated 30 coins to a grid
- Selected 1°, 2°, 3° management needs (“Management Frames”)
- Selected desired 1°, 2°, 3° data types (“Technical Requirements”)



What Has Happened Since June?

- **NOAA NCCOS delivered prioritization data to HCOM**
- **Matt Dornback from NOAA OCM worked up the data**
- **NROC brought on Amy Trice to help us formulate a plan**
- **Amy brought on Lighthouse Consulting to help us write up the project and facilitate project selection**
- **CZM made an AGOL viewer that allows Partners to see their priorities relative to others' priorities**

Results

<https://tinyurl.com/485bezcp>

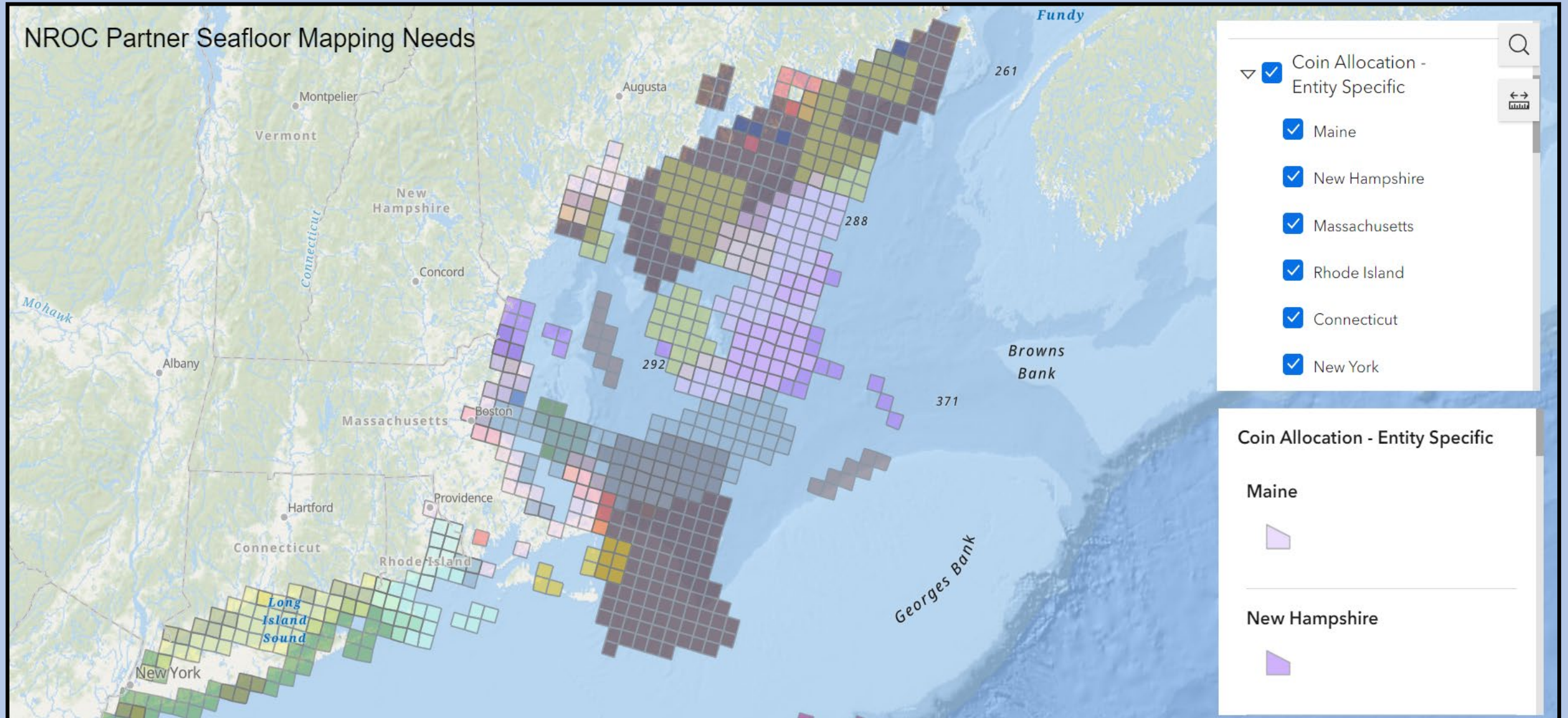
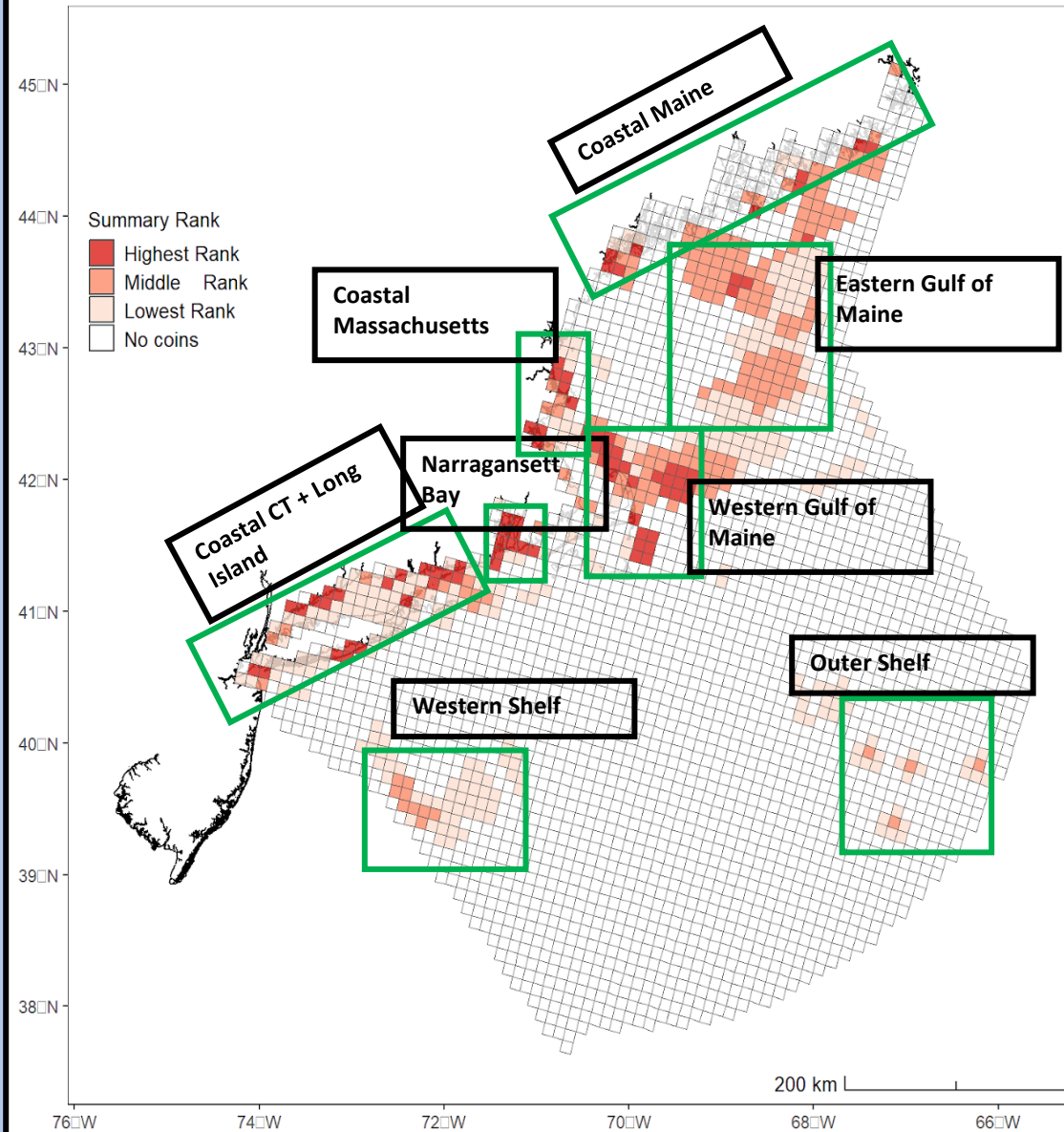


Figure 7: Focal areas in the northeast
identified using highest summary rank.

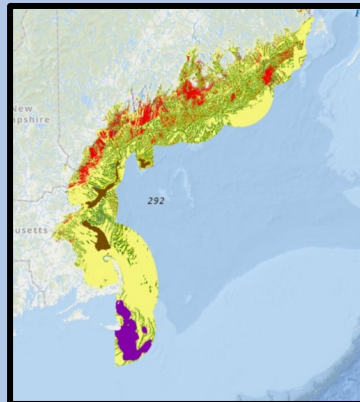


Potential NROC Seafloor Mapping Partnerships

1		NY	CT	RI	MA	NH	ME	GMRI	TNC	NMS	NPS	USACE	USCG	USEPA	USFWS	USGS
2	NY		X								X					
3	CT	X		X								X				
4	RI		X		X											
5	MA			X			X		X	X		X				X
6	NH						X		X			X				
7	ME				X	X		X								
8	GMRI						X					X				X
9	TNC				X	X										
10	NMS				X											
11	NPS	X											X	X		X
12	USACE		X		X	X		X					X	X		X
13	USCG										X	X		X		X
14	USEPA										X	X	X			X
15	USFWS															
16	USGS				X			X			X	X	X	X		

WORKSHOP OUTCOMES AND NEXT STEPS

- **Partners worked to revise individual needs**
- **Identified mapping projects for future funding**
- **Coordination and work advancing through 2025-2027 OCEH BIL priorities and other funding opportunities**
 - **Goal to build on and include others in prioritization work in future years**
- **Seascapes II update**



POTENTIAL OCEH PROJECTS 2025-2027

- 3.1. Continue to **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

POTENTIAL OCEH PROJECTS 2025-2027

- 3.5. Implement actions defined in the Northeast Coastal Acidification Network (NECAN) Plan
- 3.6. Funding coordination and 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 ISMN website –monitoring activities and assessments
 - D. Every 3-5 years, conducting a regional assessment across indicator themes
 - E. Experts to respond to current events
 - F. Creating a formal rapid response network

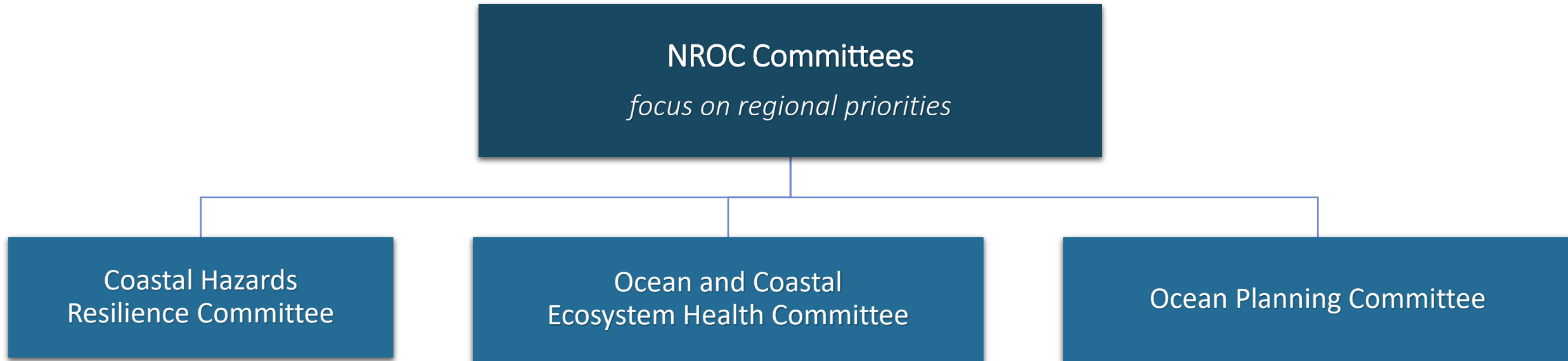
POTENTIAL OCEH PROJECTS 2025-2027

- 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



OCEAN PLANNING COMMITTEE

NOVEMBER 30 2023



OCEAN PLANNING COMMITTEE WORKPLAN

OPC Priority Actions

1. Regional Forum to Coordinate Ocean and Coastal Planning and Management

- Current uses
- Tribal priorities
- Upcoming federal policy actions
- Emerging uses
- Establish Submerged Archaeological and Cultural Resources Workgroup

2. Identify and Implement Best practices for Review, Permitting, Management

1. Develop Ocean User and Peer-reviewed Geospatial Data Products Characterizing Human, Ecological, and Cultural Resources and Change Over Time

- Convene expert workgroups by topic to inform data development
- Maintain Northeast Ocean Data website and tools

OCEAN PLANNING COMMITTEE WORKPLAN

- 4. Co-host and Advance the Regional Wildlife Science Collaborative**
- 5. Define Near and Long-term Capacity and Funding Needs to Advance OPC Work**
 - Work to advance BIL/IIJA projects
 - Secure additional resources to support ocean planning activities, including the operations and maintenance of the Northeast Ocean Data Portal
- 6. 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**

SUBMERGED ARCHEOLOGICAL
AND CULTURAL RESOURCES
WORKGROUP

WORKGROUP OBJECTIVES

The intent of the Submerged Archeological and Cultural Resources Workgroup is to coordinate regional approaches to assessing archeological and cultural resources, identify information gaps, and to initiate projects that will improve collective understanding and the use of information in ocean planning and decision making.

WORKGROUP OUTCOMES

- Regional coordination
- Identify priorities for the next year – \$150K over the next year
- Propose vision and priorities for 2025-2027 – opportunity through Bipartisan Infrastructure Law Funds

POTENTIAL 2024 SUBMERGED ARCHEOLOGICAL AND CULTURAL RESOURCES PROJECTS EXISTING RESOURCES

1. Literature review and synthesis information
 - A. Traditional ecological and cultural knowledge
 - B. Research
 - Sea level rise, marine archaeological, geological, and geophysical survey data
 - Paleolandscape reconstruction and mapping, predictive modeling, marine geology and marine processes
2. Development of reference datasets for future analysis and discussion - includes a geospatial compilation and mapping of legacy data from previous marine surveys
3. Identify data products that could indicate the geographic areas of potentially preserved paleocultural landscape
4. Identify input data, methods , and sensitivity for generating each data product
5. Develop data products from Task 2 that are data rich and develop a workplan for addressing data gaps

POTENTIAL 2025-2027 SUBMERGED ARCHEOLOGICAL AND CULTURAL RESOURCES PROJECTS

5. Continue work initiated in 2024
6. Technical requirements for storing, protecting, and accessing sensitive archeological and cultural information
 - If appropriate, develop a pilot archive
7. Develop recommendations about the use of predictive models in submerged environments
8. Identification of earlier opportunities for Tribal engagement and use of cultural resource information in planning and regulatory processes
9. Technical assistance for Tribal spatial analysis, review of relevant models, and other information collected

SUBMERGED ARCHEOLOGICAL AND CULTURAL RESOURCES WORKGROUP

OUTCOMES OF WORKSHOP YESTERDAY

- **Currently held three meetings**
- **Agreed on objectives + outcomes**
- **Funding for 2024 to advance projects defined by group**
- **Additional work for BIL funds 2025-2027**
- **Refining Tasks to develop RFP**

NORTHEAST OCEAN DATA PORTAL



NROC

Northeast Regional
Ocean Council



NORTHEAST OCEAN PLANNING



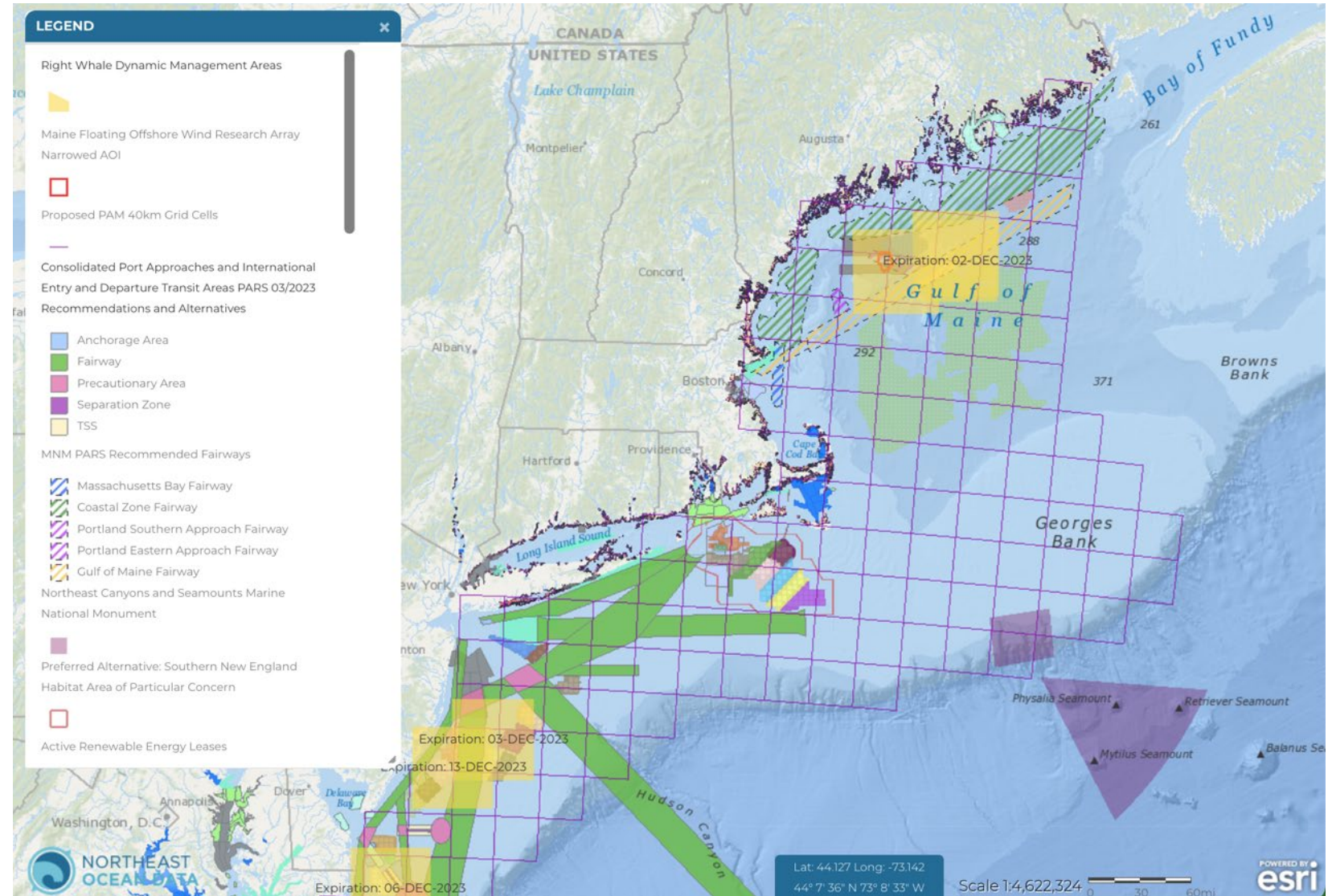
NORTHEAST OCEAN

Portal Update and Potential Projects

November 30, 2023

Recent and Potential Ocean Planning Issues

- Offshore wind leasing
- Offshore wind project development & permitting
- Offshore wind wildlife & fisheries research
- Energy transmission
- Waterways management and navigation
- Telecommunications
- Aquaculture
- Dredged material disposal
- Habitat & biodiversity conservation
- Sand & sediment management



Recent and Potential Ocean Planning Issues

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NORTHEAST OCEAN DATA

Maps and Data for Ocean Planning in the Northeastern United States

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[CURRENT ISSUES](#)

[Offshore Wind Projects](#)

[Army Corps Public Notices](#)

[Coast Guard Proposed Actions](#)

[Proposed SNE HAPC](#)

[NE Canyons & Seamounts](#)

[Archived Map Galleries:](#)

[> Deep-Sea Corals \(Archived\)](#)

[> Ocean Disposal Site \(Archived\)](#)

DATA EXPLORER

Northeast Canyons and Seamounts

On September 12, 2023, the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) jointly released a Draft Management Plan and Environmental Assessment for the Northeast Canyons and Seamounts Marine National Monument for public review and comment. Figures 12-18 in the Draft Management Plan and Environmental Assessment are Northeast Ocean Data Portal maps with relevant data on marine life and ocean uses.

To support the public comment process, this Map Gallery provides interactive versions of Figures 12-18. Click on a thumbnail image below to go to a web page that has a larger map image, a button to launch the interactive map, and a link to download a PDF version of the map. The deadline to submit public comments was **Thursday, October 26, 2023**. [More information](#)

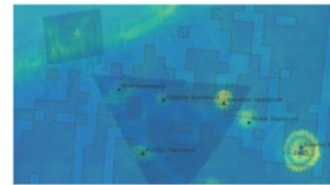


Fig. 12: Estimated offshore/pelagic seabird abundance

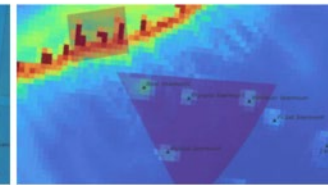
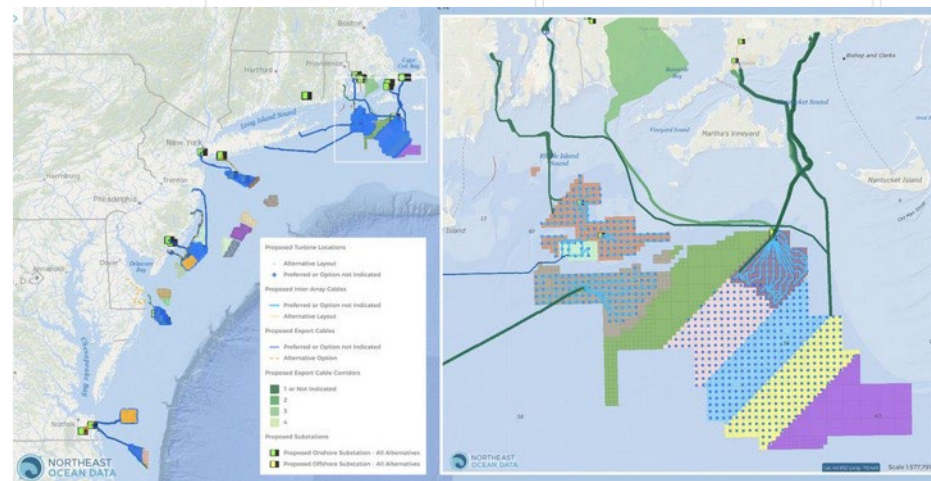


Fig. 13: Modeled marine mammal abundance

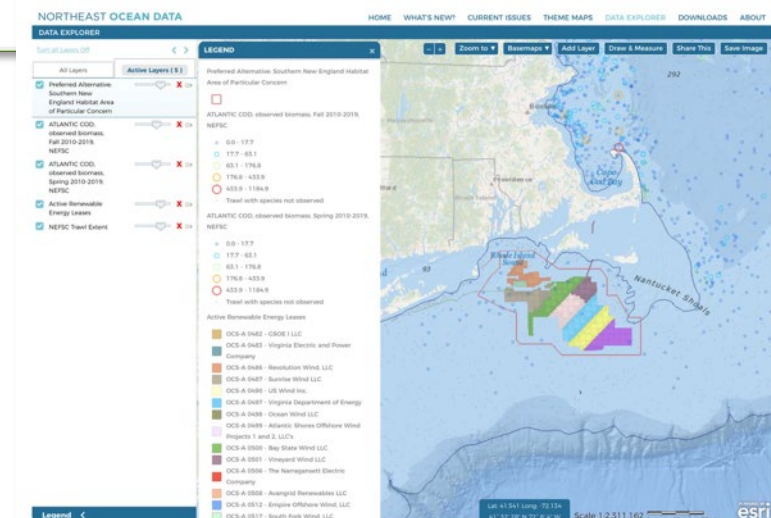


Fig. 14: Pleasure



Proposed Southern New England Habitat Area of Particular Concern

October 11, 2023

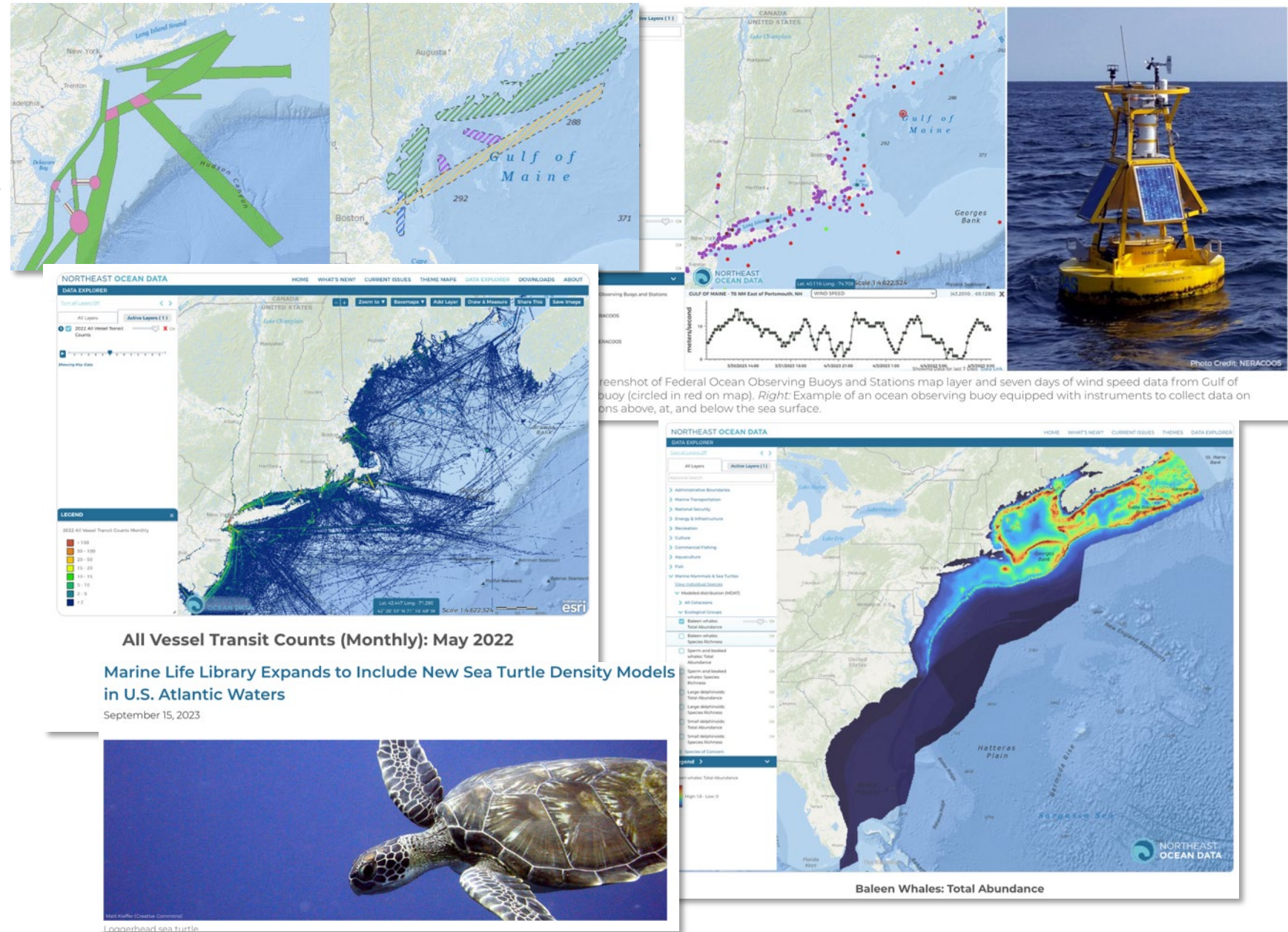


Screenshot of Data Explorer displaying the proposed Habitat Area of Particular Concern (red outlined area), along with the Active Renewable Energy Leases map layer (colored blocks) and NEFSC data on fall and spring Atlantic cod biomass from 2010-2019 (colored circles).

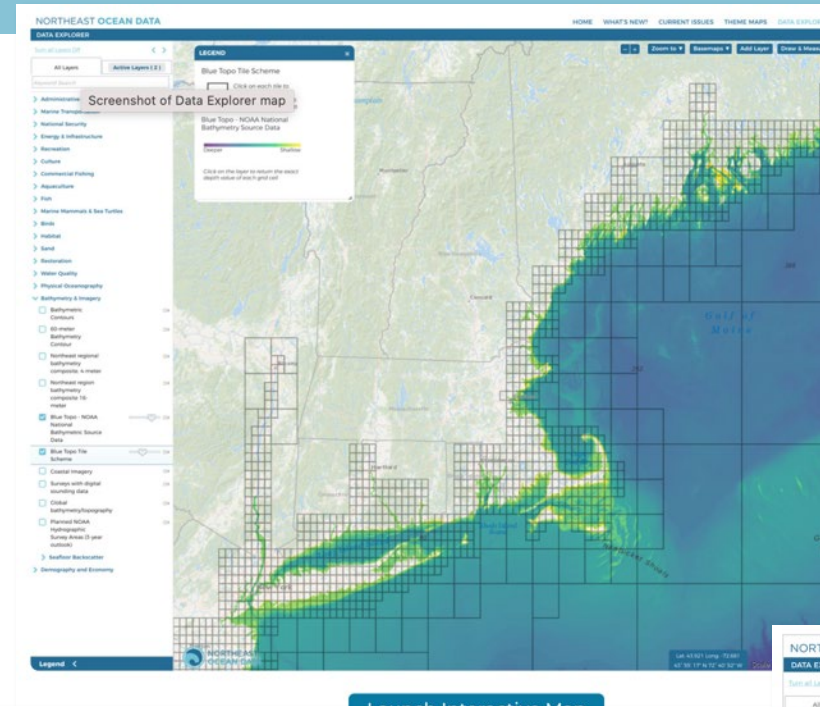
New Map of Ocean Observing Buoys and Monitoring Stations Features Live Feed of Recent Ocean Conditions

April 11, 2023

- Offshore wind leasing
- Offshore wind project development & permitting
- Offshore wind wildlife & fisheries research
- Energy transmission
- Waterways management and navigation
- Telecommunications
- Aquaculture
- Dredged material disposal
- Habitat & biodiversity conservation
- Sand & sediment management

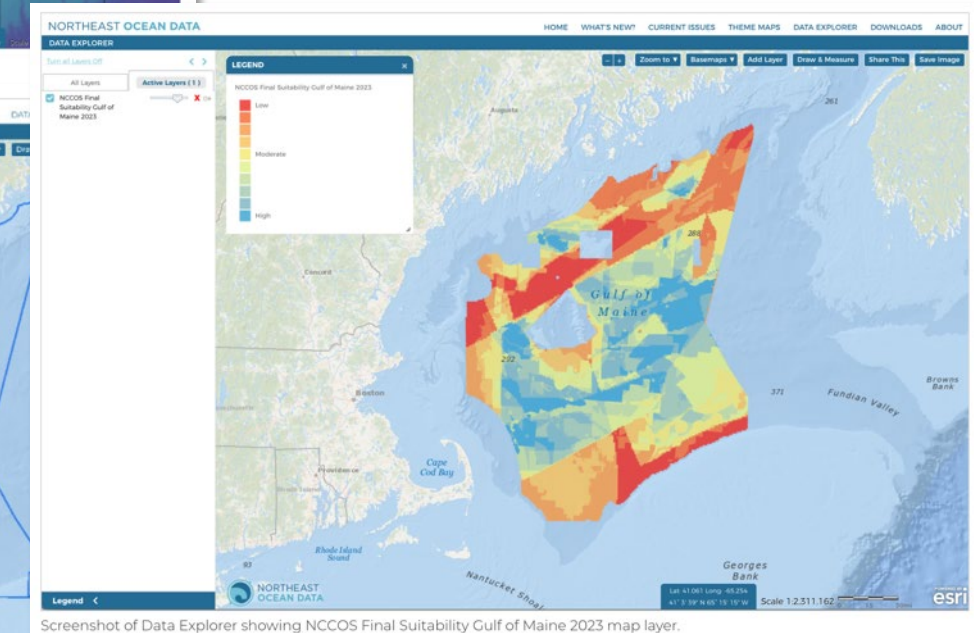
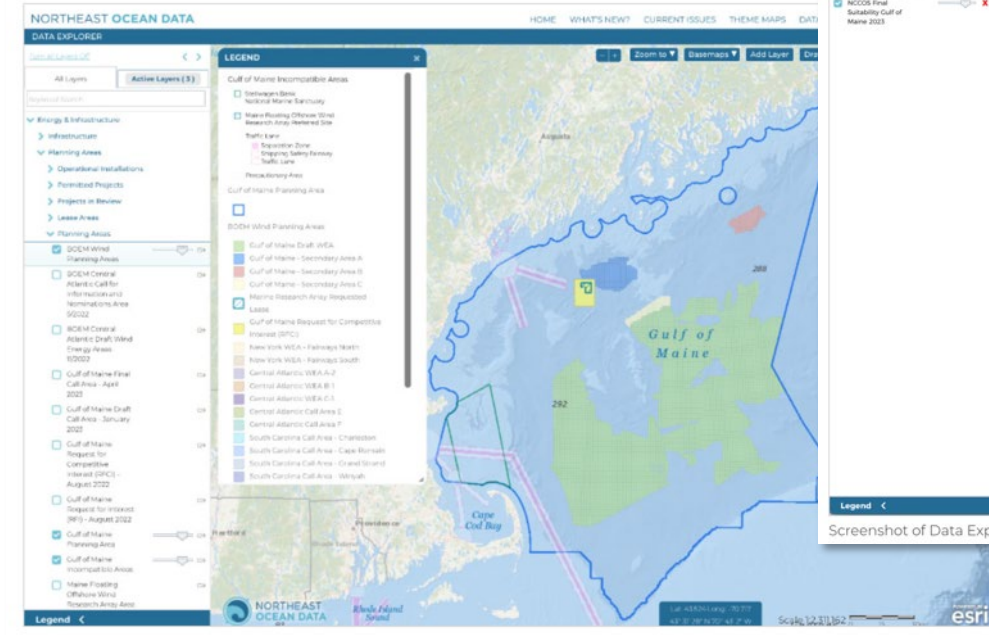


- Offshore wind leasing
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New Maps Depict Coastal Vegetation Blue Carbon Reservoirs from Maine to Long Island

July 13, 2023



Screenshot of Data Explorer showing NCCOS Final Suitability Gulf of Maine 2023 map layer.

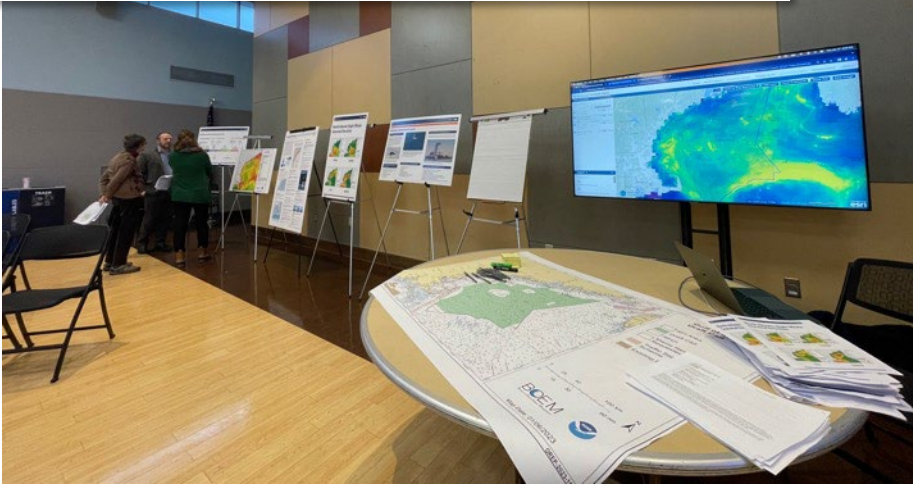
Portal in Action

Portal Provides In-Person Support for BOEM Offshore Wind Planning Meetings

February 14, 2023



Karen Baker, chief of the BOEM Office of Renewable Energy Programs, welcomes attendees to the Gulf of Maine Information Exchange meeting in Portsmouth, NH, on January 18, 2023. One of the live Northeast Ocean Data Portal displays used in the meeting is visible to her right.



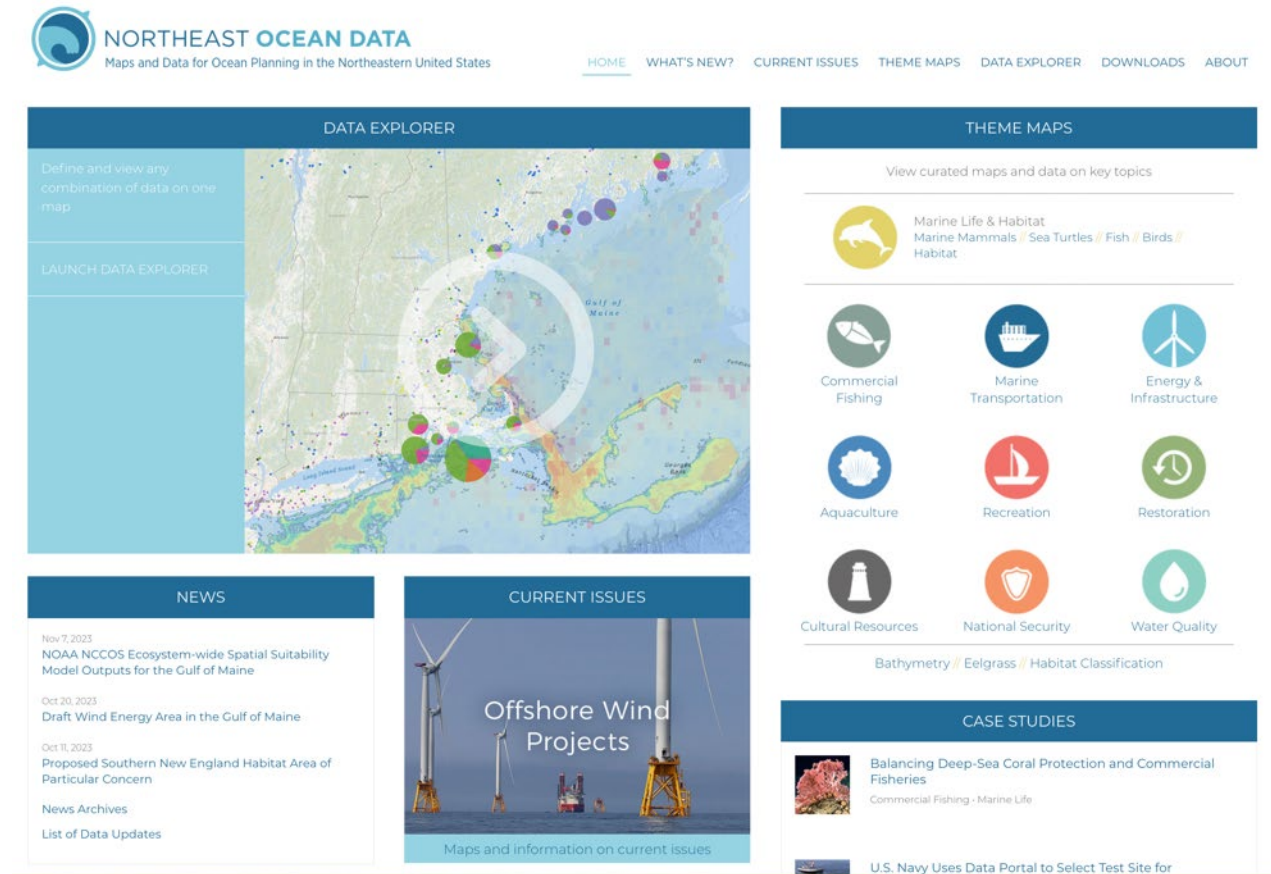
- Portal-hosted webinars on new data/tools
- Gulf of Maine Task Force
- Environmental Business Council Ocean and Coastal Resources Work Group
- Regional Wildlife Science Collaborative Subcommittee meetings
- New England Fishery Management Council meetings
- Port operator groups and safety forums
- CoastalGeoTools (biennial)
- American Clean Power Offshore Windpower
- Coastal and Estuarine Research Federation (biennial)
- Northeast Arc Users Group
- Regional Association for Research in the Gulf of Maine
- National Marine Educators Association
- New England Ocean Sciences Education Collaborative
- Northeast Aquaculture Conference (biennial)
- Boston Sea Rovers
- Maine Fishermen's Forum
- NOAA Office for Coastal Management Regional Ocean Data Sharing Work Group

Demonstrations and trainings for agencies, industry groups, and other entities

Current IJA funding through November 2024

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

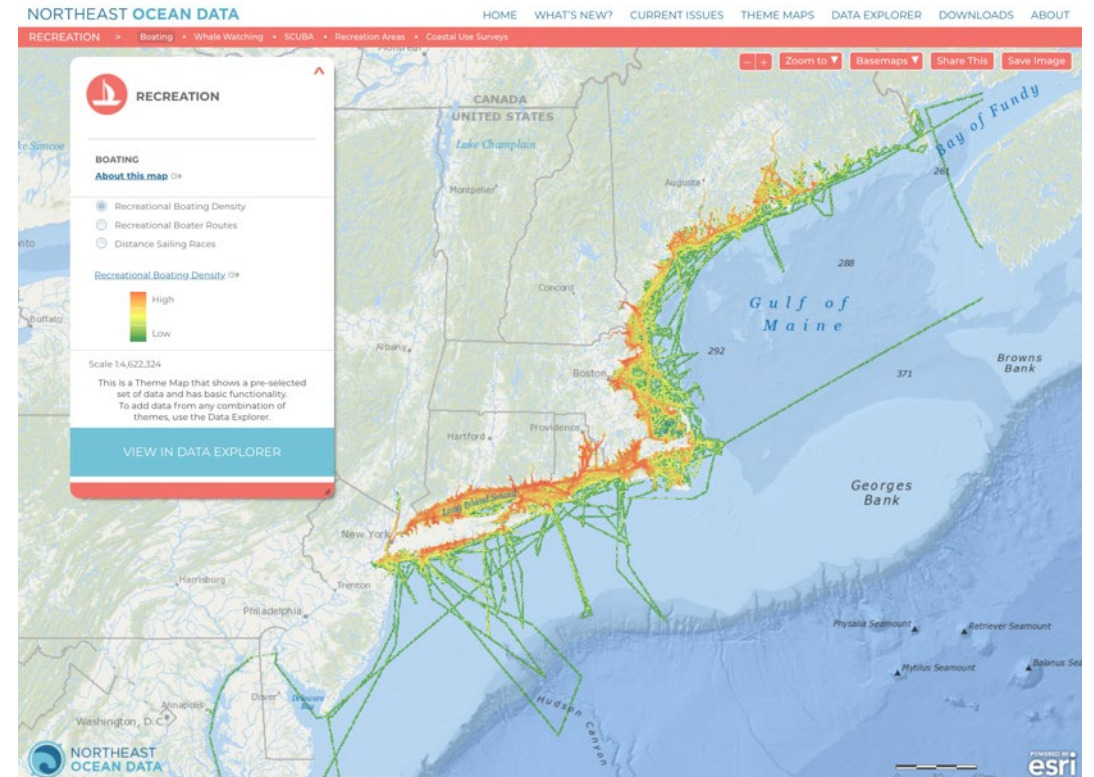
- Many years, significant increases in portal use, and many new website and mapping requirements since the last complete overhaul and redesign in 2015
- Upgrade user mapping and visualization tools and enhance connections to core external data providers
- Improve integration of Portal webpages and contextual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



Potential IIJA Projects 2025-2027

- **Recreational boating, party/charter fishing, and private recreational fishing**
- Maritime industry
- Commercial fishing
- Marine life and habitat
- Seafloor mapping data archive
- Unexploded ordnance
- Energy transmission planning
- Marine carbon dioxide removal
- Research planning data and applications

- Data that inform these layers are >10 years old
- Requires lots of outreach



Potential IIJA Projects 2025-2027

- Recreational boating, party/charter fishing, and private recreational fishing
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- Marine carbon dioxide removal
- Research planning data and applications

- Pilot application derived from NROC/INSPIRE seafloor data standardization project funded by BOEM, MassCEC, RIDEM
- Review and development with NROC and RWSC Habitat & Ecosystem Subcommittee, includes offshore wind developers

NORTHEAST OCEAN DATA

Sediment Point Sources

in Regional Sediment Data

[Source](#) [Share](#) [Language: English](#)

[Up](#) [Collection](#) [Browse](#) [Upload](#)

Description

This data was compiled from the following sources: usSeabed database, East Coast Sediment Texture Database, McMullen et al 2012, Orsted (Revolution Wind, Sunrise Wind, South Fork Wind), RPS (New England Wind), Umass Dartmouth School of Marine Science (SMASST) and Mayflower Wind. This data was collected by sediment grabs, images and video footage. The datasets were categorized into different sediment classes using multiple classification schemes. For consistency throughout the modeling process, INSPIRE converted these classifications into five CMECS based sediment classes: Gravel, Gravel Mixes, Gravelly Sand, Sand-Mud Mix. The following classification schemes were used originally for each listed source: 1. Mayflower Wind (2019): CMECS Substrate Group/Subgroup 2. McMullen et al (2012): Wentworth

[Read more](#)

Providers

NROC	HOST	PROCESSOR
INSPIRE Environmental		

General

Type	Feature Layer
Time of Data begins	1/1/2012, 12:00:00 AM UTC
Time of Data ends	12/31/2020, 11:59:59 PM UTC
Time of Data	1/1/2012, 12:00:00 AM UTC

Assets

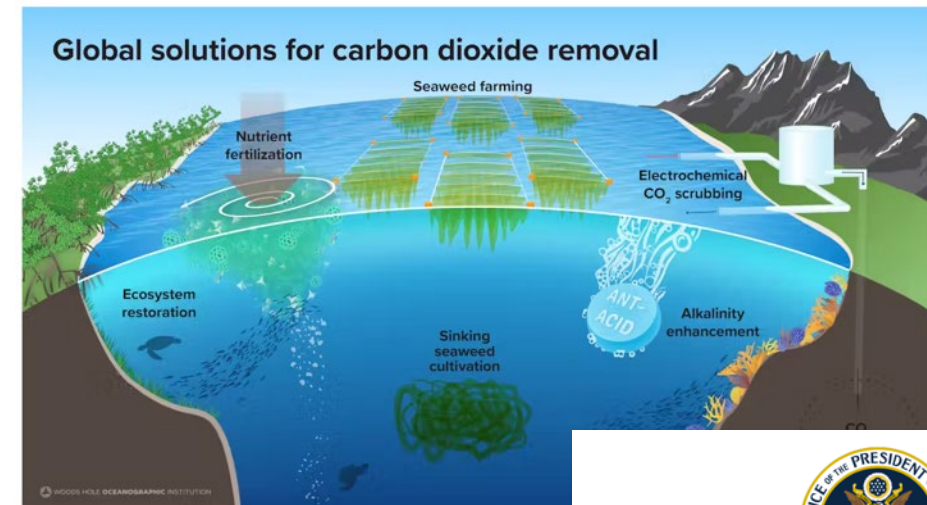
- > XML Metadata Document
- > Regional Sediment Map Server

Potential IJA Projects 2025-2027

- Recreational boating, party/charter fishing, and private recreational fishing
- Maritime industry
- Commercial fishing
- Marine life and habitat
- Seafloor mapping data archive
- **Unexploded ordnance**
- Energy transmission planning
- Marine carbon dioxide removal
- Research planning data and applications
- 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.
- Could be addressed by NOAA.

Potential IIJA Projects 2025-2027

- Recreational boating, party/charter fishing, and private recreational fishing
 - Maritime industry
 - Commercial fishing
 - Marine life and habitat
 - Seafloor mapping data archive
 - Unexploded ordnance
 - Energy transmission planning
 - **Marine carbon dioxide removal**
 - Research planning data and applications
- 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.



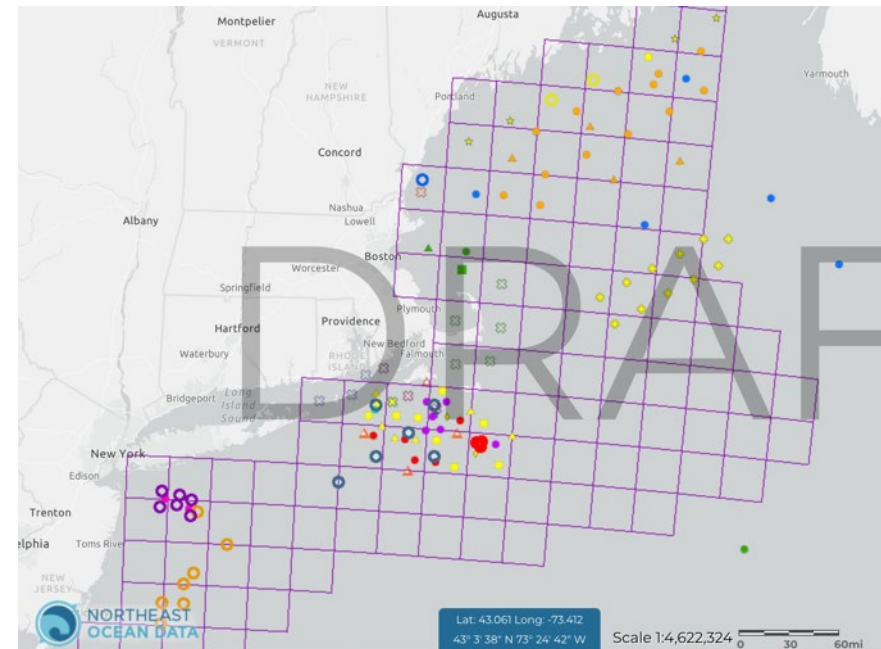
Methods of ocean carbon storage. Natalie Renier/©Woods Hole



CHARTER
of the
MARINE CARBON DIOXIDE REMOVAL FAST TRACK ACTION COMMITTEE
OF THE SUBCOMMITTEE ON OCEAN SCIENCE AND TECHNOLOGY
NATIONAL SCIENCE AND TECHNOLOGY COUNCIL

Potential IJA Projects 2025-2027

- Recreational boating, party/charter fishing, and private recreational fishing
 - Maritime industry
 - Commercial fishing
 - Marine life and habitat
 - Seafloor mapping data archive
 - Unexploded ordnance
 - Energy transmission planning
 - Marine carbon dioxide removal
 - **Research planning data and applications**
- Track monitoring and research activities and provide single-point access (data catalog) to the many existing data archives – for multiple NROC Committees' work
 - Leverage RWSC funding for map tool



Potential IJA Projects 2025-2027

- Recreational boating, party/charter fishing, and private recreational fishing
- Maritime industry
- Commercial fishing
- Marine life and habitat
- Seafloor mapping data archive
- Unexploded ordnance
- Energy transmission planning
- Marine carbon dioxide removal
- Research planning data and applications

Questions?

POTENTIAL OPC PROJECTS

- 2.1. Regional coordination and support for current ocean and coastal management and regulatory activities
- 2.2. Host regional forums on emerging issues to understand methods/technologies, permitting processes, and data needs
- 2.3. Coordinate with the federal administration on ocean policy priorities

POTENTIAL OPC PROJECTS

- 2.4. Advance projects defined by the Submerged Archaeological and Cultural Resources Workgroup
- 2.5 Update and share *Best Practices for Ocean Permitting and Management Processes*
- 2.6. Provide technical assistance to Tribes

POTENTIAL OPC PROJECTS

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

POTENTIAL OPC PROJECTS

- 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** as it relates to current ocean data uses, best practices, and ocean and coastal management priorities

