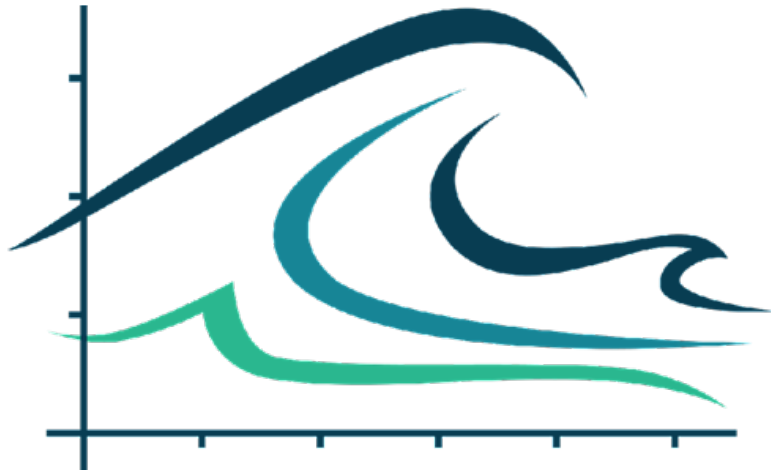


Coastal and Ocean Acidification



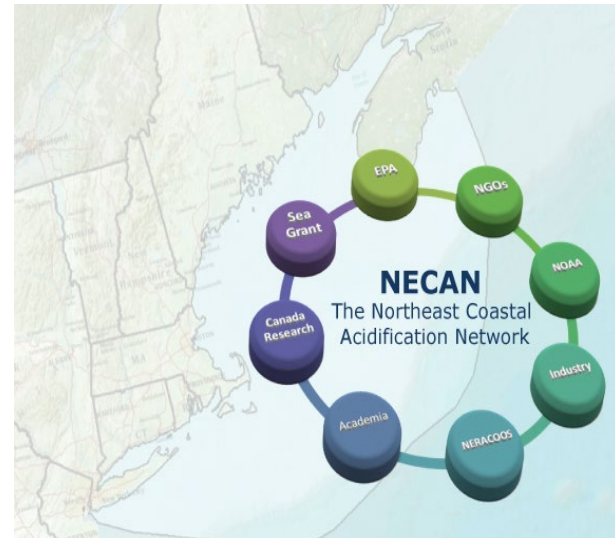
NERACCOOS

NORTHEASTERN REGIONAL ASSOCIATION
OF COASTAL OCEAN OBSERVING SYSTEMS

Jackie Motyka, NERACCOOS

OCEH Working Group: ISMN & ISMN

**INTEGRATED SENTINEL
MONITORING NETWORK**



Overview of Proposed Effort

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

Webinars & Workshop

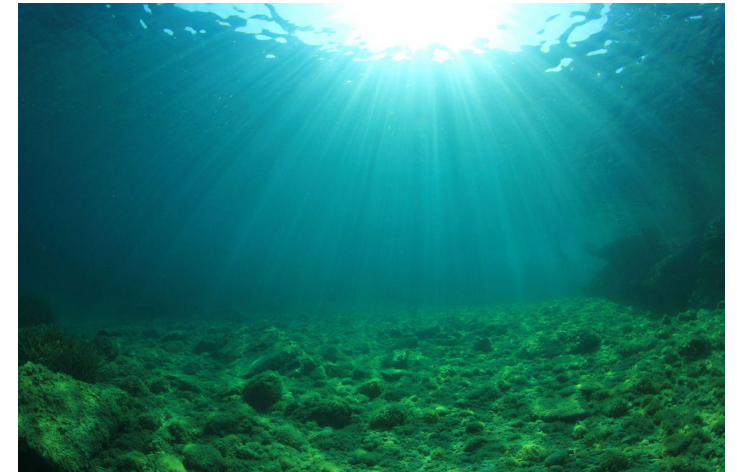
Goal: Develop a Regional OA Monitoring Plan for the Northeast

- A small planning committee has been established
 - Members of the NECAN Steering Committee
 - The kick-off meeting was held on November 2, 2022
- What questions do we need answered?
 - Why do we monitor? Where? With what?
 - What are the gaps?

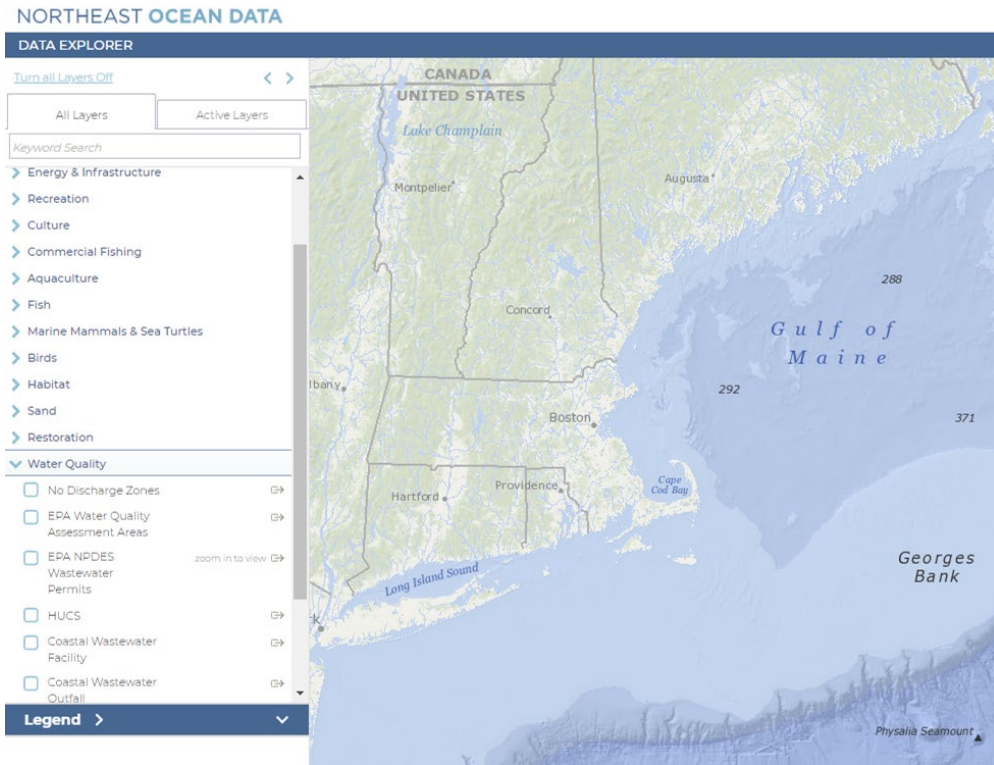


Webinars & Workshop

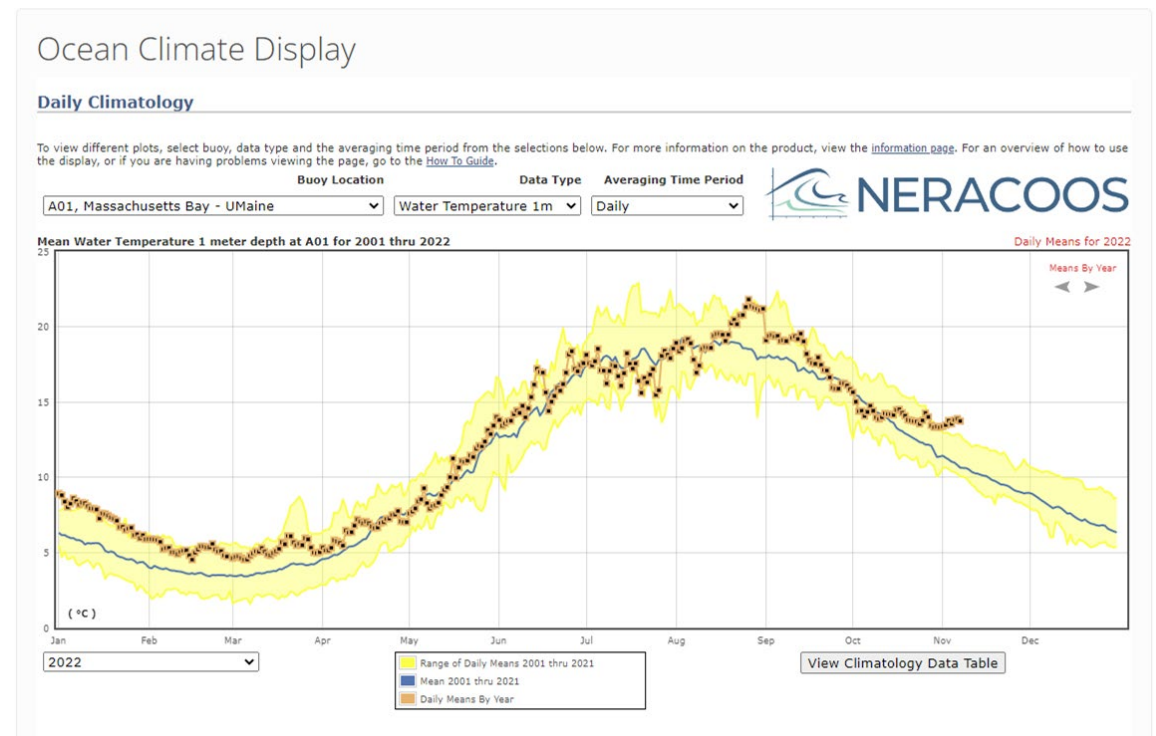
- Webinar Series
 - 3 series - 3 webinars in each series over 5 - 6 months beginning in early 2023
 - Each series will have a theme, within each theme we would like to hear about various topics.
- Workshop to be held in person in the fall of 2023
- Contracting with someone to write the plan based on information gathered throughout the webinar series and the workshop.



Integrating OA Data into Existing Data Products



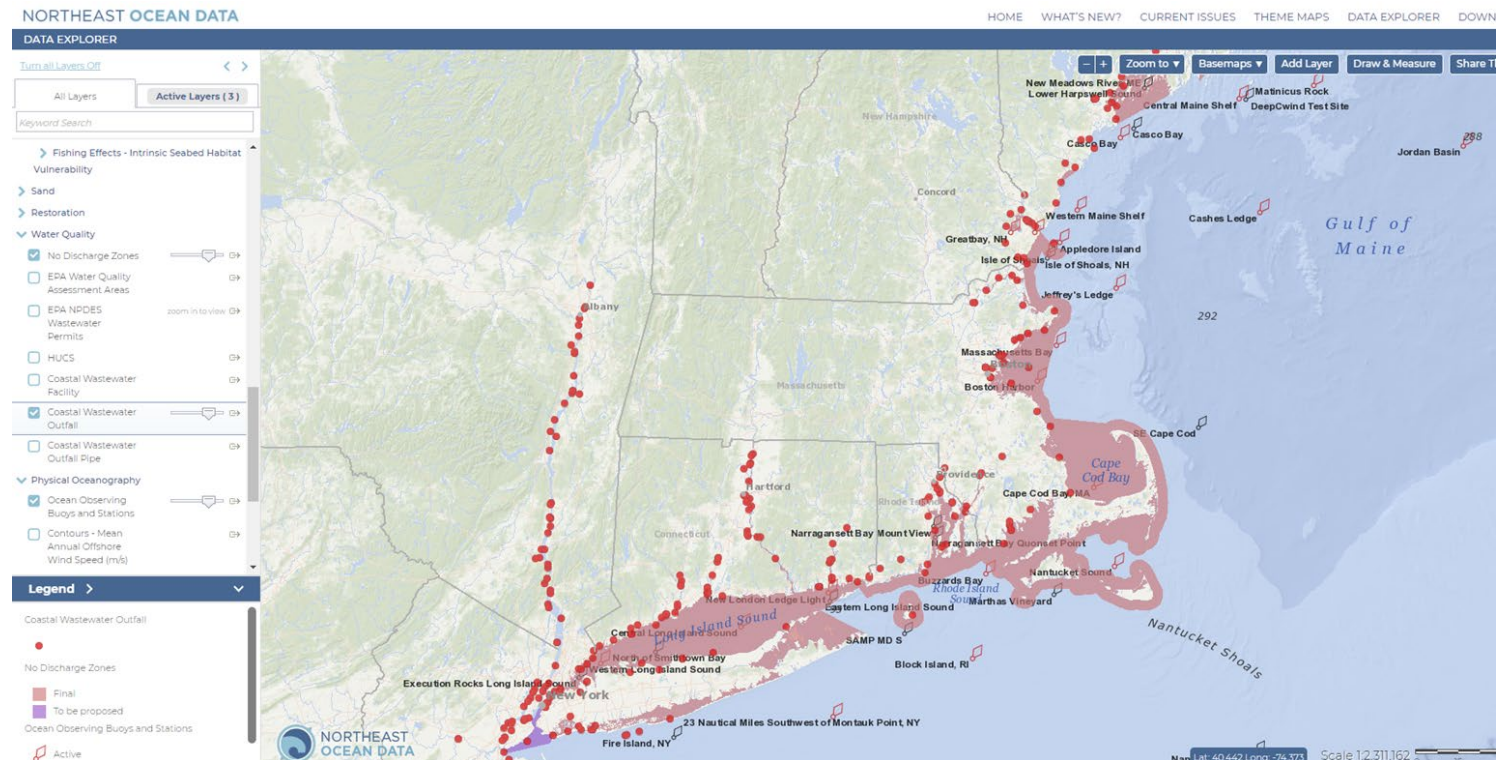
Northeast Ocean Data Portal



NERACOOS Ocean Climate Display

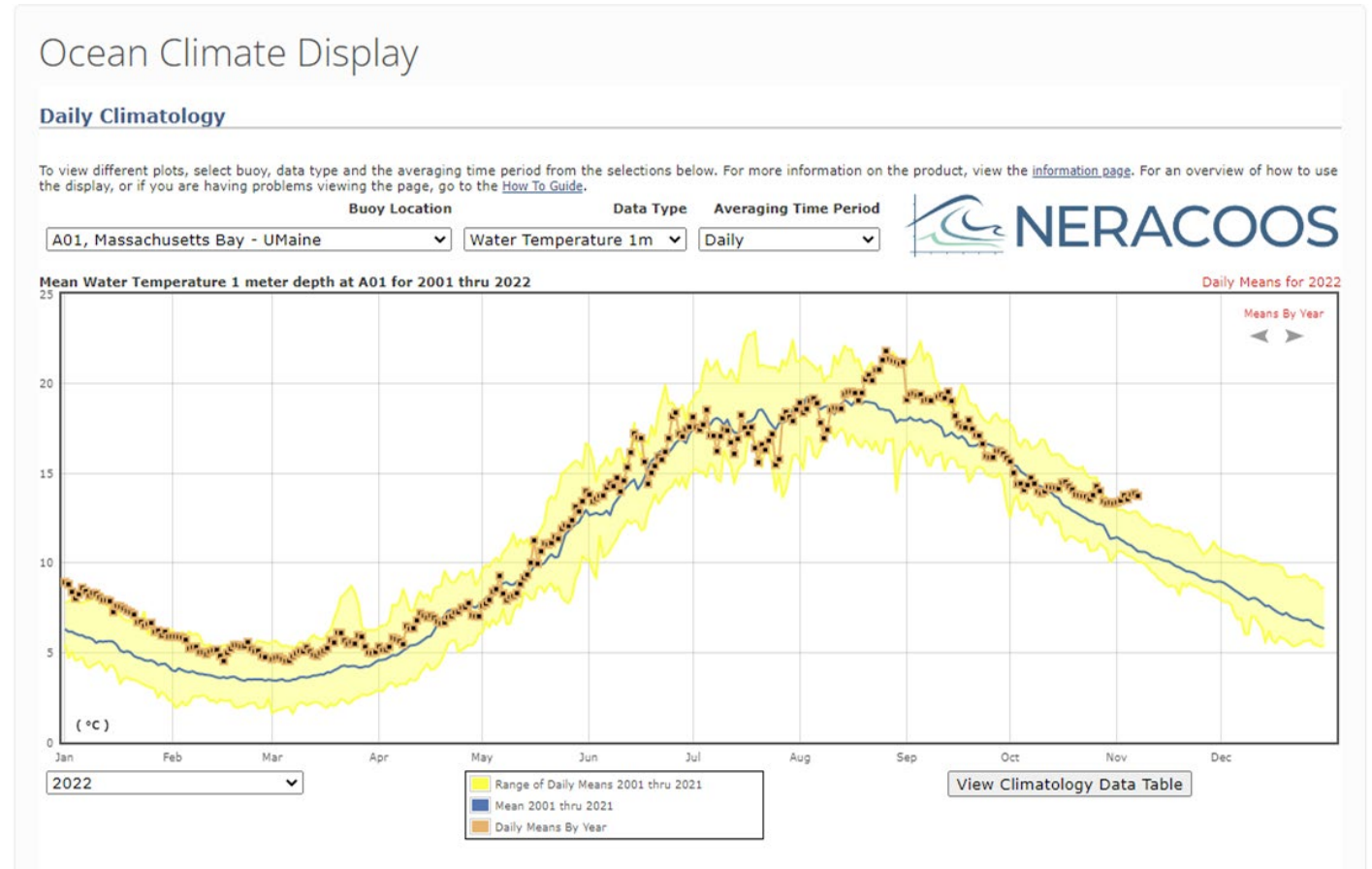
Northeast Ocean Data Portal

1. Inventory of existing OCA monitoring efforts
2. Provide spatial understanding of efforts and overlapping initiatives
3. Increasing awareness and data discovery



NERACOOS Ocean Climate Display

1. Integration of OCA data into data system and product
2. Provide increased understanding of real-time observations
3. Increasing understanding of trends and data discovery



Challenge Fund

- What do we mean by challenge fund?
 - We will set aside a specified dollar amount to be matched by collaborative partners to implement OA monitoring plan.
- How will this be distributed?
 - A competitive RFP process
- Important considerations:
 - Must advance OCA regional monitoring plan
 - Must have matching funds to deploy asset(s)
 - Geographically diverse
 - Consideration of underserved populations and communities

Expanding Existing Monitoring Initiatives



Rocky Intertidal Monitoring



Bottom Water Monitoring

Rocky Intertidal Monitoring

- Existing pan-Atlantic effort to understand temperature changes in the rocky intertidal, specifically shellfish
- Multi-stressor impacts to commercial species
- Sensors are 2cm and can be deployed for two years
- Deployment ~25 sensors over the two years

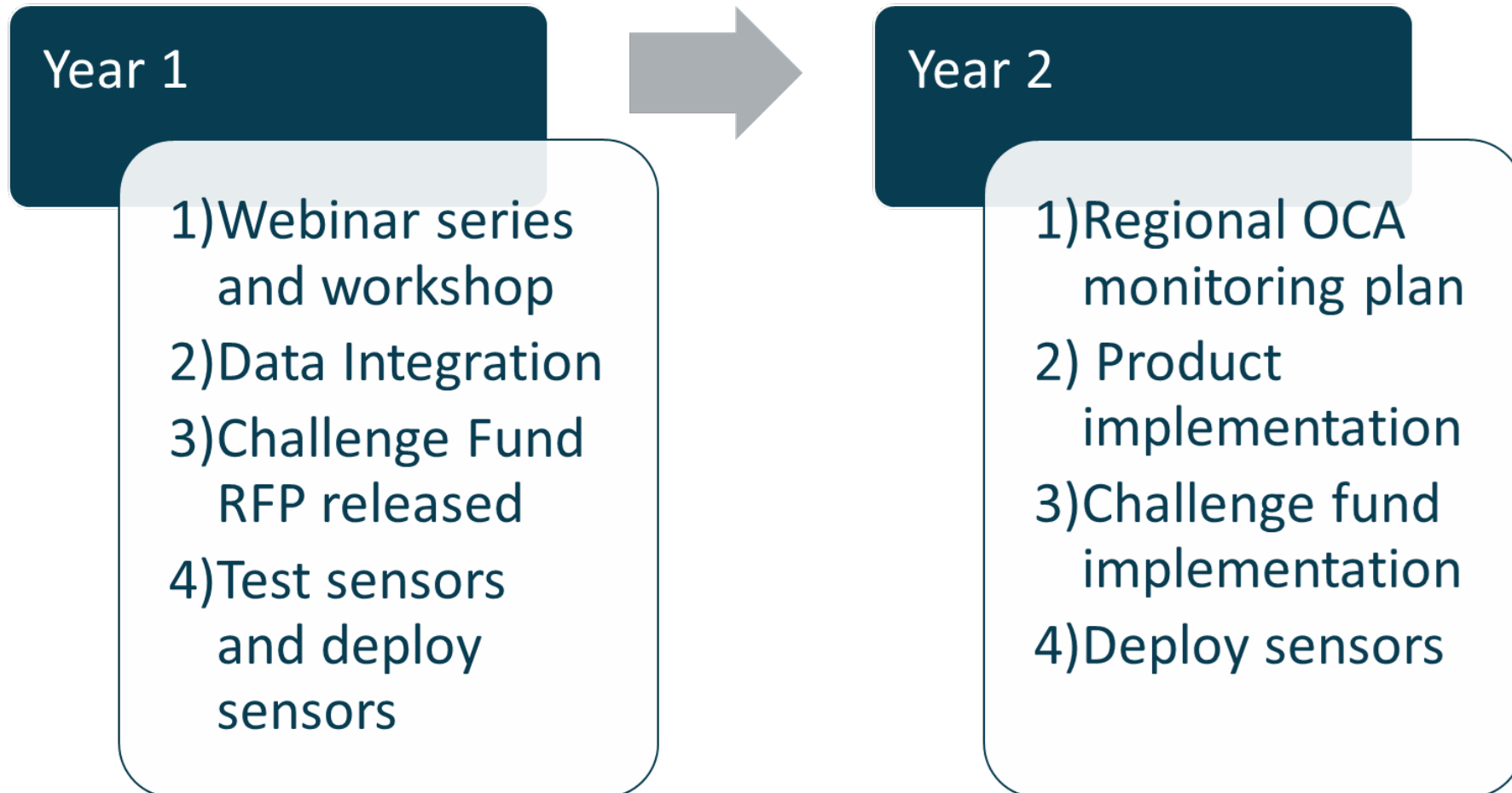


Bottom Water Monitoring

- Deploy OA Sensors on existing network of commercial vessels
 - +20,000 hourly observations over two decades
 - Integrated into models and stock assessments
 - Critically important for understanding bottom conditions
- Collaborating with WHOI on new low cost OA sensor
 - Testing continues in Year 1
 - Deployment in Year 2



Overall Project Timeline



Discussion

- How do we implement the challenge fund?
 - Funds can be spent on planning initiatives, sensor acquisition but not deployment
 - Regional distribution
 - Existing networks?
 - Consideration of underserved populations and communities