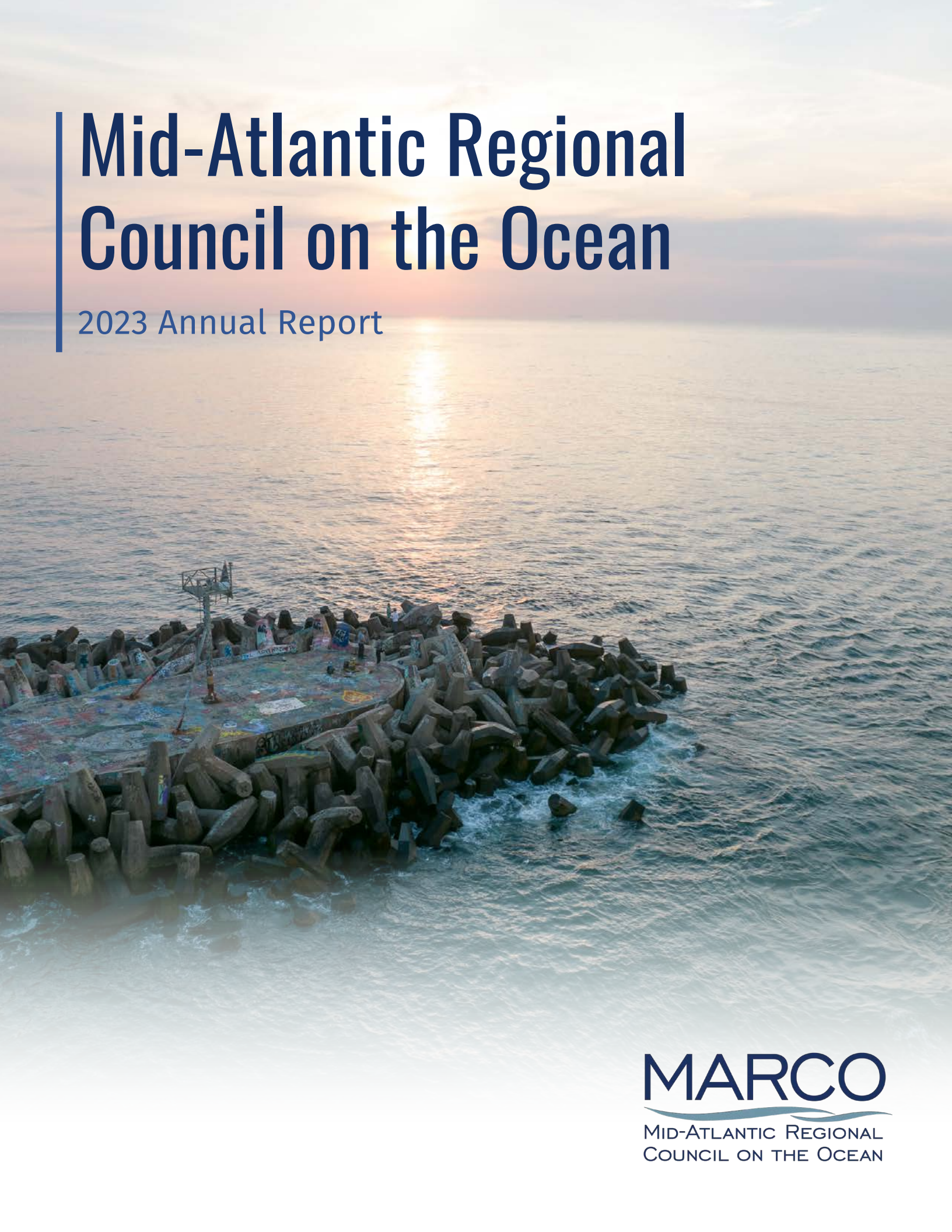


Mid-Atlantic Regional Council on the Ocean

2023 Annual Report



MARCO
MID-ATLANTIC REGIONAL
COUNCIL ON THE OCEAN

A Message from the MARCO Board

On behalf of the Mid-Atlantic Regional Council on the Ocean's (MARCO) five-state Management Board, we are delighted to present the MARCO 2023 Annual Report. MARCO is an ongoing testament to our five states' collective commitment to stewarding ocean and coastal resources.

The ocean is filled with a complex web of wildlife and ecosystems, ongoing human uses, and planned activities. Managing these concurrent uses can be equally complex. MARCO creates a space for states, federal agencies, Tribes, and other stakeholders to understand and untangle management challenges through early engagement around emerging issues, data products that make the best science accessible for regulatory decision-making, and intentional dialogue between diverse partners both within and outside of government. These activities, which are described in detail in the following report, allow for more effective, inclusive, and accessible ecosystem-based management of coastal and ocean resources.



It's an exciting time for Regional Ocean Partnerships (ROPs), including MARCO. Congress officially recognized ROPs as intergovernmental coordinators with the passage of the Regional Ocean Partnership Act, codifying a role MARCO has successfully played since it was established in 2009. Additionally, the Bipartisan Infrastructure Law appropriated funding for ROPs in recognition of how important regional-scale work is to advancing federal and shared state priorities. This Annual Report provides a summary of MARCO's extensive, collaboratively-developed body of work, much of which has been made possible with funding appropriated through the Bipartisan Infrastructure Law and Regional Data Sharing programs, as well as funds from the Bureau of Ocean and Energy Management (BOEM).

We reflect now on the significant strides made and the challenges that lie ahead with a strong sense of purpose and collaboration. The five MARCO states – Delaware, Maryland, New Jersey, New York, and Virginia – are dedicated to working together to navigate the opportunities and challenges that face us all. MARCO gives us a space to leverage our collective expertise, learn about and embrace innovative solutions, and foster resilient communities. MARCO's path forward is one of partnership and shared vision, and we are excited about the possibilities that the future holds. By continuing to collaborate and support one another, we will ensure that our coastal regions thrive for generations to come.

The MARCO Management Board





Expanding MARCO Capacity

MARCO has a robust work plan for 2023–2025, implemented in large part thanks to the Infrastructure and Investment Jobs Act Regional Ocean Partnership funds and other sources, including Regional Data Sharing funds and funding for the Mid-Atlantic Ocean Data Portal through BOEM. Increasing capacity was the first critical step that MARCO needed to take in order to effectively and efficiently make progress on all funded tasks. In 2023, MARCO hired the following positions:

- a. **Three new MARCO contract staff** to join Avalon Bristow, MARCO's Executive Director, as part of a team dedicated to ocean health and vitality.
 - **Dr. Janet Reimer, MARCO Science Program Manager:** Janet coordinates activities under the Mid-Atlantic Coastal Acidification Network (MACAN) along with a MARACOOS representative. Additionally, Janet is the point of contact for MARCO's Offshore Wind portfolio.
 - **Jes Watts, MARCO Project Manager:** Jes provides coordination support and oversees contracts under the Marine Debris, Ocean Conservation, and Maritime Commerce and Navigation Safety Work Groups.
 - **Meghan Seipp, Administrative Coordinator:** Meghan ensures budget congruence with monthly financial reports from MARCO's fiscal sponsor. Meghan also assists with planning and coordination of events.
- b. **A Fisheries Engagement Coordinator**, who will expand and deepen engagement with Atlantic coast fishing communities, fisheries scientists, and fishery governance entities including but not limited to the Mid-Atlantic Fishery Management Council. For this work, MARCO has contracted with Mr. Jay Odell, Ocean Conservation Fellow at Monmouth University. Jay comes with years of experience with the MARCO data portal, Mid-Atlantic Fisheries, and ocean conservation, and will work to improve the development of data products on the MARCO Portal, application of marine spatial planning, and climate resilient management approaches.
- c. **Racial Equity Training and Consultation:** The Raben



Group has been contracted to host virtual and in-person ocean justice and racial equity trainings, and to assist MARCO with understanding how to better address ocean justice in its work plans.

- d. **The Indigenous-led Boundary Organization** Kenah Consulting was contracted to build and deepen MARCO's engagement with Tribes in the Mid-Atlantic region to ensure Tribal interests are represented in MARCO's priority-setting, implementation, and other processes.



Topic-Specific Work Groups

Mid-Atlantic Coastal Acidification Network

(MACAN) is coordinated by both MARCO and the Mid-Atlantic Regional Association Integrated Ocean Observing System (MARACOOS) to foster collaboration and coordination across sectors and states in the Mid-Atlantic regarding ocean and coastal acidification.

Ocean Mapping Data Team (OMDT)

The Ocean Mapping and Data Team (OMDT) promotes and develops data products for the MARCO Ocean Data Portal. Data products are developed to ensure decision making is based on the best quality data available.

Marine Debris

The Marine Debris Work Group increases coordination and builds shared understanding around current and emerging marine debris issues. The work group has been focused on behavior change projects using Community-Based Social Marketing (CBSM), specifically on balloon-release behaviors and barriers to reusable water bottle use.



Ocean Conservation

The Ocean Conservation Work Group was established to develop an understanding of how conservation efforts intersect with changing oceanic conditions such as climate change, shifts in species distribution, and new uses such as aquaculture and wind energy. Additionally, the work group is identifying conservation measures for the Mid-Atlantic that should be prioritized through community engagement of diverse sectors.



Mid-Atlantic Offshore Wind Regional Collaboration (OWRC)

The Mid-Atlantic Offshore Wind Regional Collaboration (OWRC) provides a forum for interested MACO members to share and receive information about meetings and decision points related to offshore wind in the Mid-Atlantic.

Maritime Commerce and Navigation Safety

Maritime Commerce and Navigation Safety Work Group works to ensure issues impacting the safe transit of people and goods on Mid-Atlantic waters are preeminently integrated into regional planning efforts.

Recreation

Work Group seeks to identify, characterize and share information about measures to maintain the recreational value of important non-consumptive recreational areas and the activities they sustain.



Ongoing/Completed Projects



Fifth Annual Ocean Forum

The Fifth Annual Mid-Atlantic Ocean Forum, hosted May 17 and 18 at the Alexander Hamilton U.S. Custom House in New York City. For the first time since 2019, ocean stakeholders and industry professionals from around the region gathered in person for the event's robust schedule of expert panels and networking activities.

Discussions centered on pressing ocean issues of the moment and those on the horizon, including climate-ocean action, offshore wind energy, conservation efforts in the region, diversity, equity and inclusion, sustainable ocean economies, and more.

Read the **2023 Ocean Forum Summary** and **view the video recordings and slides**.

Marine Debris Summit

The 2023 Mid-Atlantic Marine Debris Summit was held Dec. 6-7 in Ocean City, Maryland, with over 100 people in attendance. Speakers covered topics including microplastics, debris recovery after coastal storms, community engagement, large debris removal, capture and prevention, and policy. The summit also included exhibit tables in the lobby, a research poster session, a marine debris art exhibit, and a Marine Debris Trivia night.

MACAN Fellows

MACAN's fellowship aims to provide an immersive, real-world learning opportunity while also helping to build workforce diversity within the field of coastal and ocean acidification by supporting the delivery of a project(s) consistent with the MACAN 2022-2024 Work Plan. This product could include, but is not limited to outreach materials, a final paper, a poster presented at a meeting, or a digital data product/tool.

MARCO Portal by the Numbers

93,000

map layer activations

1,400

new maps added

18

webinars, trainings
& demos

Climate Change Adaptation



Ocean and Coastal Acidification: Annual Webinar Series

The Mid-Atlantic Coastal Acidification Network's (MACAN) Spring 2023 webinar series included four presentations titled "Ocean Acidification Research and Education Highlights Around the Region" (Parts I and II), "Mitigating Ocean Acidification through Marine Carbon Dioxide Removal (mCDR)," and "A Coupled Biogeochemical-Biological-Economic Modeling System to Quantify Climate Change Impacts on Oyster Aquaculture in Chesapeake Bay." **All webinars** were recorded and are available to watch.

Ocean and Coastal Acidification Hotspot Analysis:

MACAN hired a contractor, Teresa Schwemmer, Ph.D., in September to complete the hot spots assessment. The contractor presented project updates to the MACAN Steering Committee meeting in November 2023. The premise and goals of the project were presented at the MACAN State-of-the-Science workshop in September, 2023. Currently, the contractor is acquiring data from various public data repositories as well as collaborating with other researchers to obtain and use their data.

Ocean and Coastal Acidification Monitoring Inventory: 20,000 Data Points Added

The public can view the places at sea, in coastal waterways and estuaries where the waters are being monitored for signs of increasing acidity with a collection of maps on the Portal. Earlier versions of these maps were expanded in 2023 to include information for nearly 20,000 additional sites where sampling is currently being or has been conducted in the Mid-Atlantic. Taken together, the maps are serving as a valuable tool for MACAN in its work to develop a robust network that monitors for changes to the region's water chemistry.

Ocean and Coastal Acidification: State of the Science Workshop

In September of 2023, MACAN hosted an in-person meeting, in Baltimore, Maryland, focusing on presenting updates to stakeholders on the state-of-the-science and outreach and education regarding ocean and coastal acidification issues in the Mid-Atlantic. There were over 40 attendees over the two days of the meeting from federal agencies, states, academia, including students, and NGOs. The slides from the presentations are available on the MACAN website on the [workshop page](#).

Meeting sessions included:

- Monitoring, Technology, and Data Tools to Inform Decision Making
- New Initiatives in Outreach and Community Engagement
- Updates on Federal and State Initiatives and DEIJA Considerations
- Assessing Vulnerabilities in Mid-Atlantic Species, Ecosystems, and Industries
- Marine Carbon Dioxide Removal
- Nature Based Solutions for Healthy Ecosystems and mCDR.

Completion of Balloon Reduction Campaign

Following the success of Virginia's Community-Based Social Marketing campaign called "Joyful Send-Off," MARCO was awarded a 2018 NOAA Marine Debris Prevention grant to enable the Marine Debris Work Group to implement broad-scale Mid-Atlantic implementation of the campaign to reduce the intentional release of balloons. After a couple years of research and campaign development, the Prevent Balloon Litter campaign was officially launched at all three partner aquariums (Virginia Aquarium, National Aquarium, and New York Aquarium) in 2021. Campaign exhibit materials were also shared with project partners, who were able to take the campaign to various events. In the end, the combined efforts led

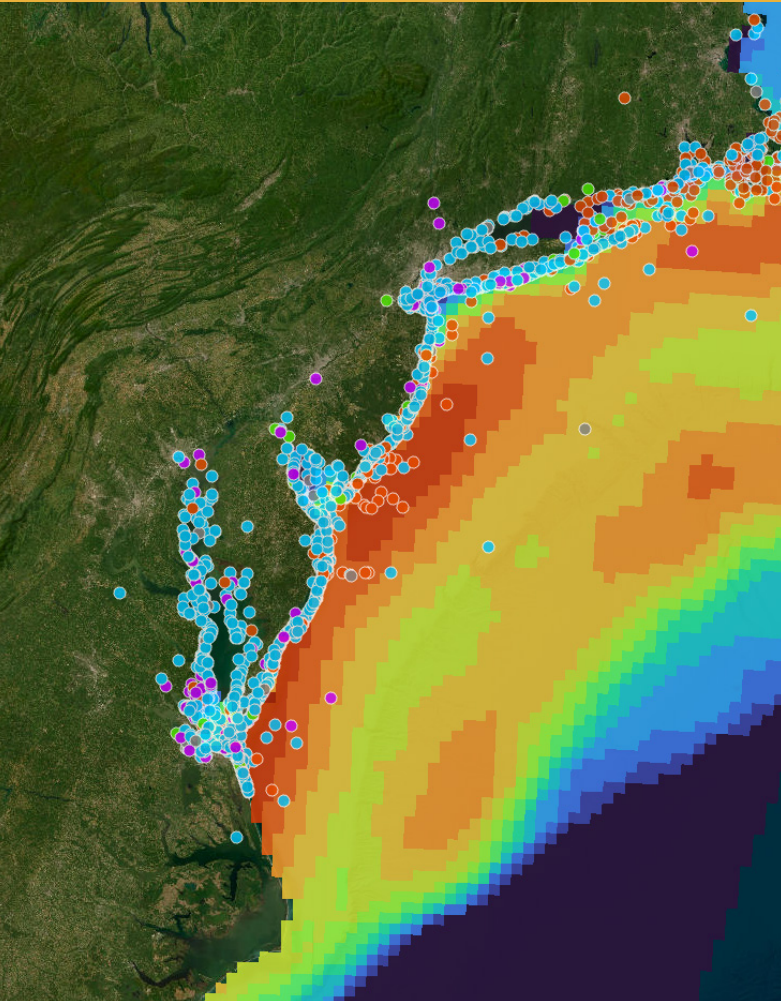


to over 100,000 conversations being held, and almost 1800 pledges to not release balloons were signed. The grant for this project officially closed on April 30, 2023. However, the aquariums and other project partners plan to continue the campaign in perpetuity, with the aquariums integrating it into their plastic pollution programs.

Start of Reusable Water Bottle Campaign

Plastic bottles are some of the most common types of debris found on Mid-Atlantic beaches. Building on the Marine Debris Work Group's experience implementing the Community-Based Social Marketing campaign to prevent balloon litter, the work group is now using NOAA Regional Ocean Partnership funds to develop a new campaign to tackle plastic water bottle use. Plans are underway to survey Mid-Atlantic populations about the barriers to and benefits from using reusable water bottles, which will be used to inform messaging. In support of that work, each of the five Mid-Atlantic states have been working with waterfront recreational areas (prioritizing areas serving underserved communities) to provide drinking water refill stations. Messaging that will be developed based on the survey results will accompany the refill stations, and water refill station usage will be tracked to further evaluate behaviors. This project kicked off in 2023 and will run through 2024. So far, seven of the 20 stations have been purchased, with locations queued up for the remaining 13.

Marine Habitats



MDAT Sea Turtle Density Data Released

Through a collaboration with the Marine-life Data & Analysis Team (MDAT), the Portal expanded its marine life map collection to include new sea turtle surface density model data products developed by the Navy Undersea Warfare Center Division Newport and several other research institutions. With the Sea Turtle Density Monthly Slider, users can toggle through or automatically animate maps showing where green, Kemp's ridley, loggerhead and leatherback sea turtles can typically be found throughout the year.

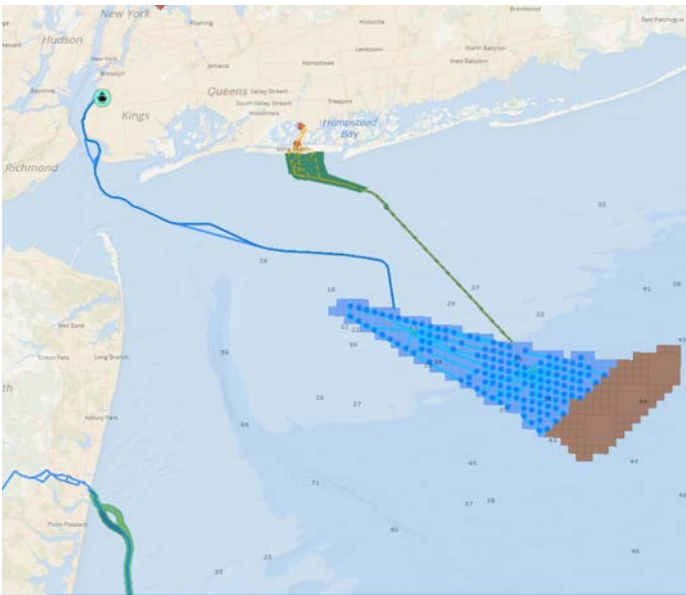
Sea Turtle Stranding Data

Soon after the slider's release, the Portal published a series of maps showing the sites of thousands of sea turtle strandings reported from 2000 through 2020 from Maine to Virginia. The maps were created from data maintained and provided by NOAA's Sea Turtle Stranding and Salvage Network.

Conservation Theme: Additions & Plans for Expansion

A Conservation theme was created on the Portal to highlight areas where ocean and coastal conservation measures are proposed or currently in place in the Mid-Atlantic. The theme contained 22 map layers in 2023, with plans underway to expand its offerings this year. Potential uses of the data include helping users appreciate and understand existing area-based conservation measures, taking stock of ocean conservation progress, and providing a mechanism for identifying gaps. The theme could help facilitate well-informed public input during comment periods that may emerge from the Hudson Canyon National Marine Sanctuary nomination or similar processes in the future.





Advances in Renewable Energy

The Portal made several data additions to allow users to track the status of offshore wind energy projects and proposals in the Central Atlantic and New York Bight.

Planning Offshore Wind Transmission Workshop

MARCO began planning work to host a spring 2024 workshop in Baltimore, Maryland, to:

- Summarize and discuss the offshore wind energy transmission planning and siting processes; the status of studies in the Northeast, Mid-Atlantic, and Southeast regions; and anticipated opportunities, challenges, and information needs (short-term and long-term) for coordinated offshore wind transmission in the Atlantic.
- Identify next steps and considerations for advancing the DOE/BOEM Atlantic Offshore Wind Transmission Action Plan.
- Create a workshop summary that will serve as a supporting resource on needs and pathways to equitably and efficiently developing offshore wind transmission and prioritizing coordination on the Outer Continental Shelf.

RWSC Science Plan Release

The Regional Wildlife Science Collaborative for Offshore Wind (RWSC) released its draft Science Plan in summer 2023 to undergo several rounds of review. The final version was published in early 2024. [Read the Science Plan here.](#)

Proposed Infrastructure Sites on Portal

A collection of maps showing the proposed locations for offshore wind energy infrastructure such as turbines, transmission cables, and substations along the East Coast were added to the Mid-Atlantic Ocean Data Portal. The map layers present the most up-to-date publicly available plans submitted by developers to BOEM and are updated frequently.

Ocean Stories Mini-Series for Transmission

A two-part mini-series of “Ocean Stories” features added to the Portal offers an educational look at the basics of offshore wind energy transmission siting. Created by members of the Mid-Atlantic Committee on the Ocean’s offshore wind work group, the **first installment** introduces the planning considerations involved with designing power cables in federal waters while **the second installment** looks at the design and construction process for a cable connecting to two active turbines off Virginia Beach.

Proposed Offshore Wind Ports Layer

A new map on the Portal shows the locations of port facilities that are currently in use or are expected to accommodate offshore wind farm development in the Mid-Atlantic. Users can click each point to learn the port’s name, location, status (e.g., operational, under construction), associated offshore wind projects, infrastructure assets, contact information and more.

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