



Oyster dive boat and watermen (Photo: Jordan Salafie)

SUSTAINABLE OYSTER RESTORATION AND MANAGEMENT PLAN FOR EASTERN BAY, MARYLAND

AUTHORED BY THE
EASTERN BAY OYSTER COALITION WORKGROUP
JANUARY 13, 2025

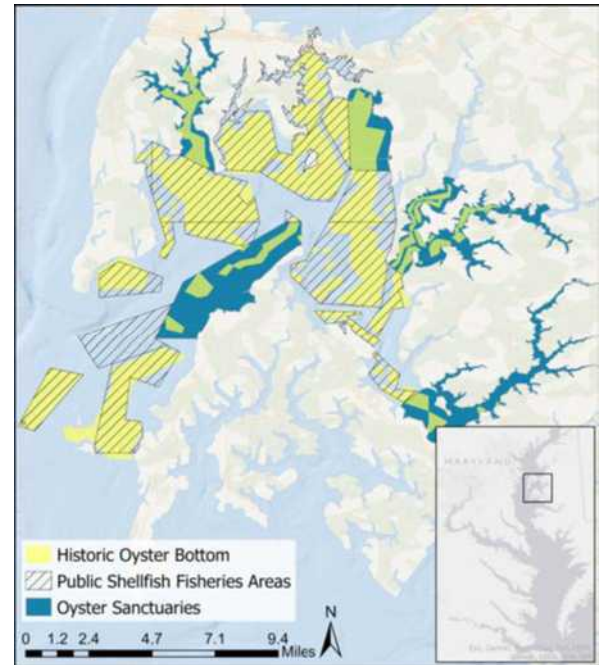
EXECUTIVE SUMMARY

The State of Maryland aims to engage all stakeholders for their input to support ongoing Chesapeake Bay restoration efforts and is committed to restoring Maryland's oyster resources for ecological and economic benefits. Collaborative efforts led by the Maryland Department of Natural Resources (DNR) and the Maryland Oyster Advisory Commission resulted in the commitment of funding to restore oysters in Eastern Bay. However, continued challenges related to overlapping resources, conflicting user interests, and outdated spatial data on oyster habitat necessitated further planning and agreement on how to use these funds most effectively.

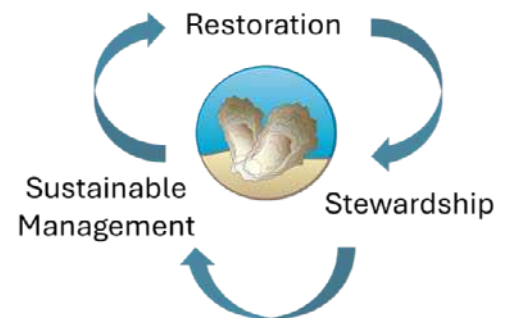
The Oyster Recovery Partnership (ORP) convened the Eastern Bay Oyster Coalition with funding from the National Fish and Wildlife Foundation to assist and enhance the previous efforts led by Maryland DNR and address these challenges. The Coalition was comprised of local business owners, oyster managers, environmental groups, watermen, and public representatives with local expertise. All members have a shared interest in the future of the Eastern Bay oyster resource and its long-term health. The Coalition met six times over the course of 2024 to develop consensus recommendations for the long-term sustainable restoration and management of the oyster resource and ecosystem in Eastern Bay.

Through this effort, the Eastern Bay Oyster Coalition developed a Sustainable Oyster Restoration and Management Plan (the Plan) that outlines a set of recommendations to optimize oyster production in Eastern Bay over the long term. A total of 13 strategies and 42 actions were developed to address goals to restore, sustainably manage, and establish public support for oysters in Eastern Bay. As part of this process, the Coalition also led an iterative, stakeholder-driven habitat survey integrating Coalition input and feedback to assess existing oyster habitat in Eastern Bay. The results from the habitat survey were used by the Coalition to create a draft spatial plan, submitted as part of the package of recommendations, which identifies locations to implement oyster activities outlined in the Plan.

The Eastern Bay Oyster Coalition process successfully created synergy among oyster stakeholders and industry members in Eastern Bay to create a unified plan that incorporated the diverse interests and needs of all end-users represented on the Coalition. This framework will be translated and adapted to restore and manage shallow water habitat in other Chesapeake Bay tributaries facing similar or unique challenges.



Eastern Bay, Maryland, and its tributaries contain vast oyster resources, with an estimated 20,086 acres of historic oyster habitat, 22,645 active acres of public shellfish fishery areas, seven oyster sanctuaries, and twelve active aquaculture leases.



SUMMARY OF RECOMMENDATIONS

- Improved communication
- Continued need for stakeholder involvement
- Proper siting of enhancement activities
- Substrate needs
- Aquaculture expansion
- Monitoring
- Permitting and regulatory gaps & needs
- Funding
- Adaptive and new management practices
- Increase enforcement

HISTORY OF OYSTERS IN EASTERN BAY



PHOTOS

Top left: Tonging for oysters. (Karen Ortel, Harris Crab House)

Bottom left: Original packing house at Harris Seafood Company, one of only 2 remaining seafood processors in the region. (Harris & Ortel Families, Harris Crab House)

Top right: Replenishing oyster shell on harvest reefs to support future harvest.

Historically, Eastern Bay was an extremely productive area for oysters. The region hosted a robust seafood economy centered around the plentiful oyster harvest in the region, with up to 29 local seafood processing operations in the 1960s. Eastern Bay also supported a thriving seed program, where spat or seed oysters were removed from Eastern Bay and deployed in less naturally productive areas to enhance harvest in other regions of the Chesapeake. Concurrent with these activities, Maryland DNR conducted an extensive replenishment program that deployed shell back onto oyster habitat in Eastern Bay.

The Eastern Bay oyster population was devastated by disease following a drought in 1997-2002, resulting in a decline in the local seafood economy. Land use changes in the watershed that continue today have overwhelmed the existing wastewater management systems and degraded water quality through increased nutrient loading into the system. Increased shoreline development and shoreline hardening also increased sediment input. Combined, these multiple stressors reduced the ability of oysters to recover to their former densities and extent.

The current focus on Eastern Bay began in 2019 when MDNR developed the Eastern Bay Project, an integrated and inclusive approach to restore oysters to the region and to define a new working relationship that equally included representation from oyster aquaculture, sanctuaries, and the fishery. MDNR convened a small group of local oyster stakeholders to discuss and develop management goals, plan enhancement activities, and develop metrics for tracking progress. The Oyster Advisory Commission was briefed on MDNR's integrated approach and endorsed the project by recommending that the state collectively plan and undertake a combination of replenishment, restoration, and aquaculture activities in Eastern Bay over 25 years, with an equal amount of funding (\$1M annually) allocated for planting spat in sanctuaries and spat and shell on fishery reefs in addition to current restoration activities. In 2022, the state legislature provided funding to support restoration and replenishment activities outlined in the project – plantings began in 2023 and are still underway. The Eastern Bay Coalition's work expands upon the collaborative approach and enhancement actions initiated by Maryland DNR.

EASTERN BAY OYSTER COALITION WORKGROUP



Eastern Bay Oyster Coalition Workgroup meeting and discussion led by Jeff Blair of Facilitated Solutions, LLC

The Oyster Coalition Workgroup (OCW) was convened by ORP to develop a strategic plan for optimizing oyster production in Eastern Bay over the long term using a process that supports and creates synergy among all Eastern Bay oyster stakeholders. The Plan was developed through (1) a stakeholder-driven, consensus-based process, (2) an updated habitat survey of Eastern Bay that was used to help identify areas suitable for future oyster production, (3) improving stakeholder relationships in the OCW setting, and (4) improving public education of oyster production in Eastern Bay.

The OCW consisted of 17 members representing 11 interest groups, all of which operate businesses, manage resources, work with the public, or conduct other work in Eastern Bay. All members have a shared interest in the future of the Eastern Bay oyster resource and its long-term health.

The OCW members attended six Coalition meetings and one Community Open House in 2024. During these meetings, the OCW developed the framework, strategies, and actions described in the Plan using a consensus-building process designed and implemented by Facilitated Solutions, LLC - a neutral third-party facilitator with 30 years of experience. OCW members evaluated all components of the Plan using the best available science, data, stakeholder knowledge, and decision-support tools for oyster production in Eastern Bay.

The OCW agreed that to optimize oyster production in Eastern Bay over the long term, oysters must be (1) enhanced, (2) managed sustainably, and (3) there must be support for these two components from stakeholders and the public. Success will require implementing all components of the Plan collectively. The OCW developed a suite of performance metrics to track progress towards the objectives and goals outlined in the Plan.

The Plan was unanimously approved by the Coalition in December 2024 and submitted to Maryland DNR leadership for consideration and implementation in January 2025. The Coalition urges Maryland DNR to embrace and prioritize the Coalition recommendations to achieve the most effective outcomes for Eastern Bay with continued stakeholder support.



Interactive habitat mapping exercise at Coalition meeting

KEY RECOMMENDATIONS AND OUTCOMES



Oyster spat-on-shell used in restoration

GOAL A. RESTORATION

ENHANCE THE OYSTER RESOURCE IN EASTERN BAY

Vision: A healthy, self-sustained Eastern Bay oyster population.

Outcome: By 2034, oyster resources that include natural habitat, public oyster grounds, and privately operated aquaculture leases will be thriving and contributing toward a sustainable population and improvements to the Eastern Bay system.

6 Strategies & 18 Actions



Oyster dredging in Eastern Bay (photo: Jordan Salafie)

GOAL B. SUSTAINABLE MANAGEMENT

MANAGE THE OYSTER FISHERY AND AQUACULTURE TO INCREASE AND SUSTAIN HARVEST AND A THRIVING ECONOMY

Vision: A productive oyster population that sustains a vibrant commercial oyster fishery, a thriving aquaculture industry, and recreational and tourism related activities.

Outcome: By 2034, both private and public oyster resources will sustain a vibrant commercial oyster fishery, a thriving aquaculture industry, and recreational and tourism related activities in Eastern Bay.

4 Strategies & 12 Actions



Interactive discussions with the public at Eastern Bay Oyster Coalition Community Open House Forum

GOAL C. STEWARDSHIP

AN ENGAGED STAKEHOLDER COMMUNITY THAT SUPPORTS SUSTAINABLE OYSTER RESTORATION AND MANAGEMENT

Vision: Stakeholders in Eastern Bay are committed to working together to advocate for a sustainably managed oyster habitat and a healthy Eastern Bay ecosystem.

Outcome: By 2034, stakeholders and the public are informed of the importance of sustaining the health of oysters in Eastern Bay, and are engaged and working actively together along with elected and appointed leaders and managers to invest in and implement the Plan.

3 Strategies & 12 Actions

HABITAT DATA TO INFORM THE PLAN

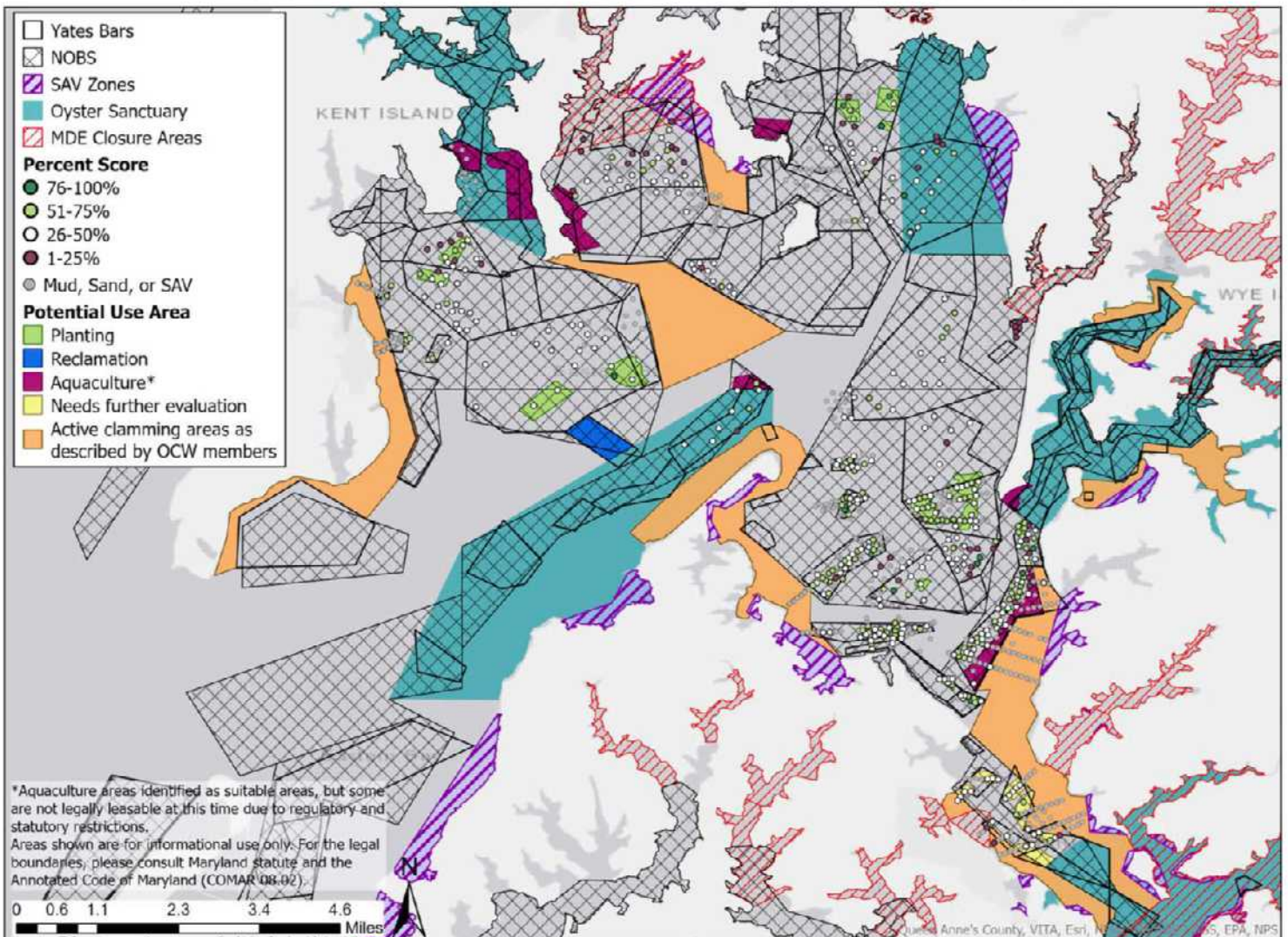
The Eastern Bay habitat survey was developed by ORP and the OCW to inform the OCW process and support the recommendations outlined in the Plan. The OCW used the results of the habitat survey to identify:

- Potential locations for evaluation for future investment in oyster restoration and enhancement
- Potential marginal habitat that could be evaluated for other uses
- Potential locations that could support other activities addressed in the OCW recommendations

The outcome of the OCW's iterative habitat survey and mapping exercise is a draft spatial plan, submitted as part of this package of recommendations, which is ready for immediate evaluation and should be used to support the implementation of the OCW's recommendations.



Oyster habitat surveys conducted by ORP



Draft Eastern Bay spatial plan outlining current oyster management boundaries, oyster habitat quality results, and proposed locations for implementing Coalition recommendations.



EASTERN BAY OYSTER COALITION MEMBERS

- Moochie Gilmer** (Waterman)
- Vicki Paulas** (Chesapeake Bay Environmental Center)
- Mike Eber** (Waterman)
- Nick Hargrove** (Wittman Wharf Seafood)
- Jeff Harrison** (Waterman)
- Jim Moran** (Queen Anne’s County Commissioner)
- Dan Sweeney** (The Nature Conservancy)
- Richard Jones** (Waterman)
- Brian Callam, PhD** (Maryland DNR, Aquaculture & Industry Enhancement)
- Chris Judy** (Maryland DNR, Shellfish)
- Ward Slacum** (Oyster Recovery Partnership)
- Ben Ford** (ShoreRivers)
- Scott Budden** (Orchard Point Oyster Company)
- Mark Galasso** (Tuna the Tide Fishing Charters)
- Jason Ruth** (Harris Seafood Company)
- Kathy Brohawn** (Maryland Department of Environment)
- Matt Latham** (Waterman)
- Alternate - John Rusty McKay** (Maryland Department of Environment)
- Alternate - Troy Wilkins** (Waterman)

EASTERN BAY LEADERSHIP TEAM

- Olivia Caretti, PhD** (Oyster Recovery Partnership)
- Jeff Blair** (Facilitated Solutions, LLC)
- Jennica Moffat** (Oyster Recovery Partnership)
- Ward Slacum** (Oyster Recovery Partnership)
- Beth Franks** (Oyster Recovery Partnership)

HOW YOU CAN HELP

- Read the [full report](#).
- [Subscribe](#) to Oyster Recovery Partnership’s newsletter for updates and opportunities.
- Eat locally-sourced oysters whenever possible.
- [Support local seafood businesses](#) that recycle oyster shells in support of restoration.
- Recycle oyster shells at [public drop sites](#).



OYSTER RECOVERY PARTNERSHIP | ORP



This project was funded in part by the National Fish and Wildlife Foundation. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions of the National Fish and Wildlife Foundation or its funding sources. Mention of trade names or commercial products does not constitute their endorsement by the National Fish and Wildlife Foundation or its funding sources.