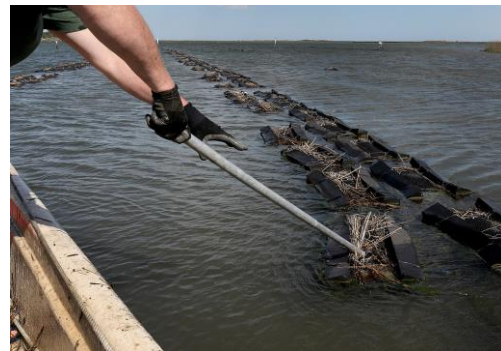
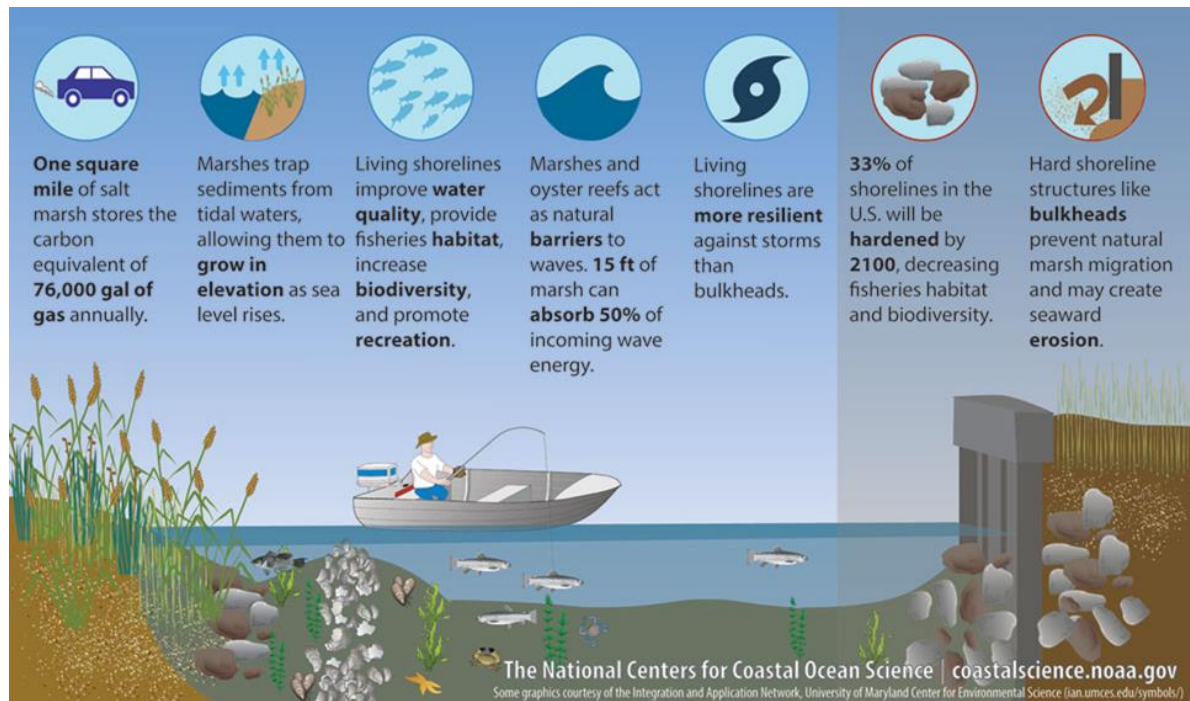


Nearshore Opportunities: Habitat + People + Economy



Bruce Vogt
Ecosystem Science Manager
NOAA Chesapeake Bay Office

Where land meets the Bay



Benefits to Environment, People & Economy



Value of Oyster Habitat

Oysters live on all U.S. coasts, provide habitat, and filter the water. Their numbers have declined due to disease, over-harvesting, and other challenges. NOAA and partners are working to rebuild the oyster population.

Oysters Working for You

An adult oyster can filter **50 gallons** of water every day. Before their population declined, oysters in the Chesapeake could once filter a volume of water equal to the entire Bay (about 19 trillion gallons) in a week. Now it would take the remaining Bay oysters more than a year.



Oyster restoration in one Chesapeake Bay river system is expected to bring a **150%** increase in blue crab harvest, an additional **\$10 million** in annual fishing revenues.



1 acre of oyster reef provides **\$6,500** in denitrification services, helping improve water quality.

Habitat at Risk

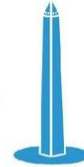


In the Chesapeake Bay, oysters are at about **1-2%** of their historic levels. That means a lot less habitat for fish, crabs, and other critters.



Our Work

In one Chesapeake Bay tributary alone, NOAA and partners have restored more than **350 acres** of oyster reef habitat—that's larger than the National Mall in Washington, D.C.



NOAA and partners plan to restore oysters in **10** Chesapeake Bay tributaries by **2025**.

Oyster aquaculture is a growing business that helps the ecosystem and the economy. In Maryland, harvest grew from 3,340 bushels in 2012 to 57,543 bushels in 2018—a more than **1700%** increase.



More Information: <https://www.fisheries.noaa.gov/habitat-conservation>

- 1) Valuation of ecological and social benefits provided by natural and restored nearshore habitat for communities and fisheries (Bilkovic and Scheld)
- 2) The Economic Impacts of Oyster Restoration and Seagrass Habitats of the Middle Peninsula, Virginia (Ihde and Knoche)

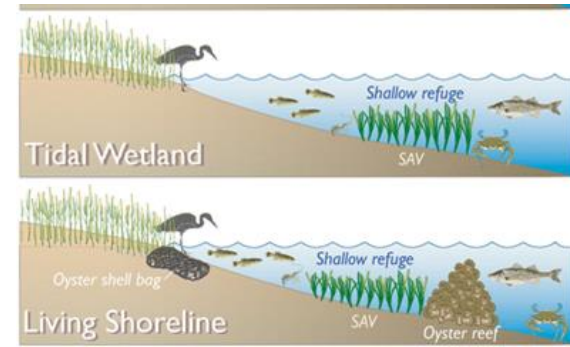
Growing call for Nature-based solutions

Build Back Better Framework

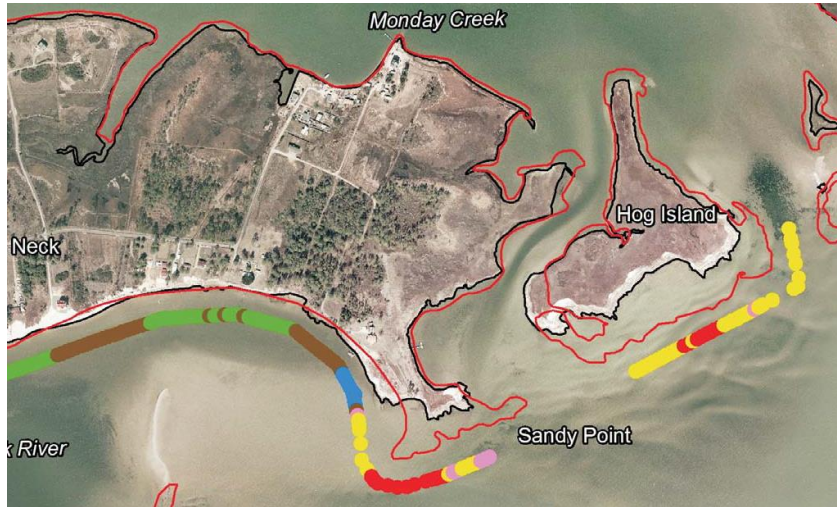
Bolster resilience and natural solutions to climate change through a historic investment in coastal restoration

Climate change experts...call for better integration of nature-based solutions in adaptation planning at COP26 in Glasgow.

Dr. Zita Sebesvari, Deputy Director at UNU-EHS remarked. “...we need to go beyond forests and look also for example at grasslands, peatlands, **marshes and marine ecosystems, all of which build on the rich diversity of ecosystems for adaptation, disaster risk reduction and biodiversity.**”



Building resilience by linking oysters, sav, tidal marshes and societal needs



Science based planning

- Where can we best apply nature based solutions to meet multiple outcomes?
- What metrics and scale are required for success?
- What designs exist or can be developed?
- What does collaboration look like?
- What monitoring is needed to evaluate performance?

