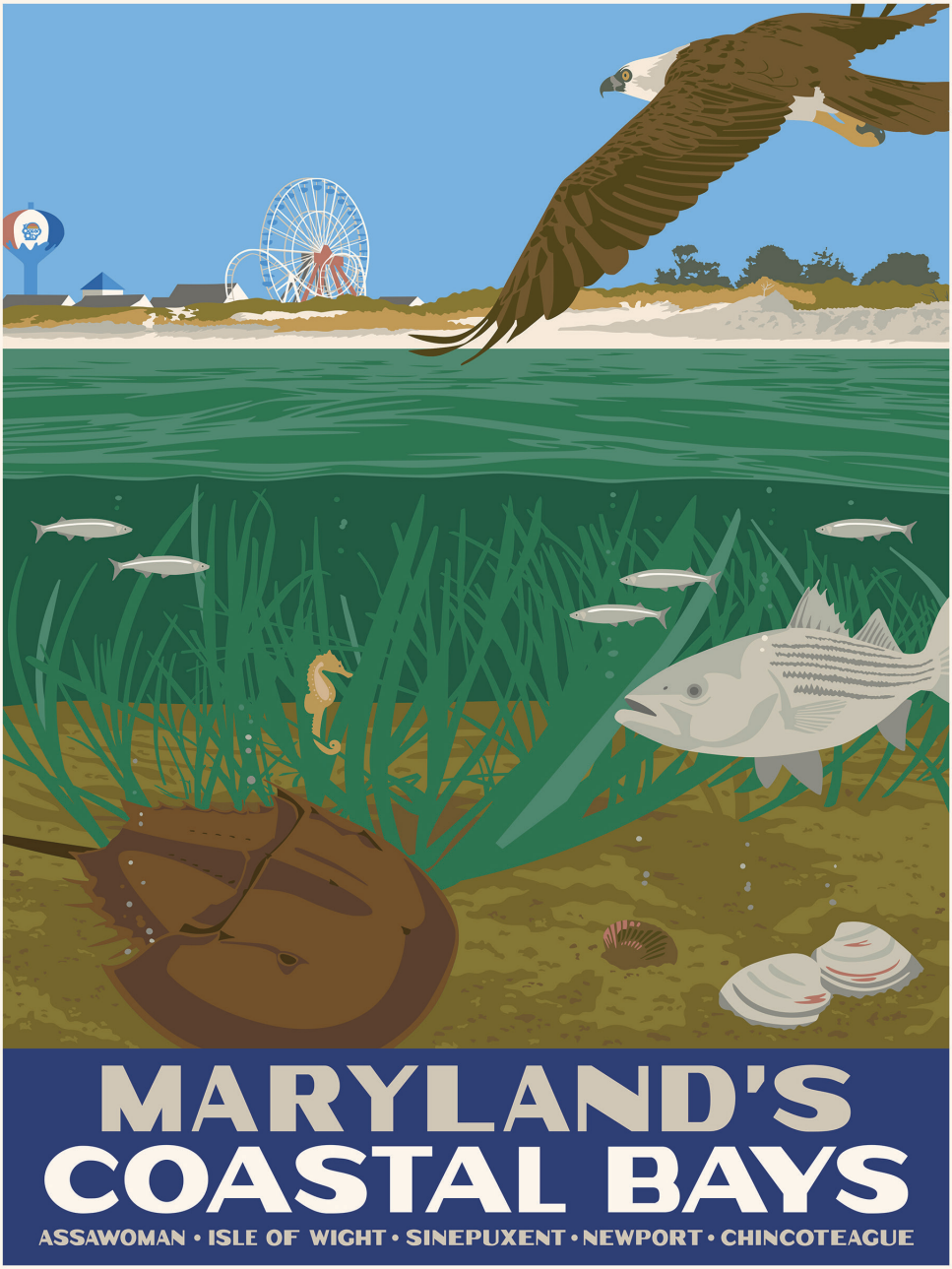


MARYLAND'S COASTAL BAYS

ASSAWOMAN • ISLE OF WIGHT • SINEPUXENT • NEWPORT • CHINCOTEAGUE

B

2025 REPORT CARD

Overall health slightly lower for 2025

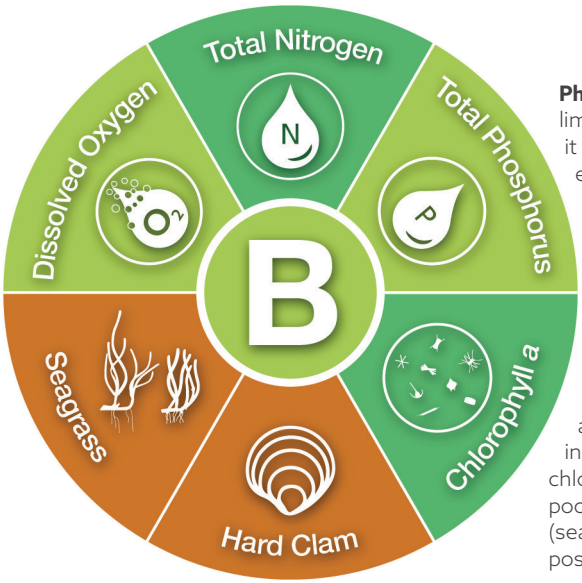
Coastal Bays health is defined as the progress of four water quality indicators (nitrogen, phosphorus, chlorophyll *a*, dissolved oxygen) and two biotic indicators (seagrass, hard clam) toward scientifically derived ecological thresholds or goals.

The Coastal Bays had an overall score of B, 66%, which was slightly lower than the previous year (-1 point (pt)). Most indicator scores remained the same except for dissolved oxygen and total phosphorus scores which decreased.

The highest-scoring indicators were chlorophyll *a* with an A+ (98%) and total nitrogen with an A (93%), both remaining steady from the previous year. Two indicators had good scores, but declined since last year, total phosphorus with a B+ (79%, -2 pts), and dissolved oxygen with a B- (62%, -5 pts). The lowest-scoring indicators continue to be seagrass (D+, 38%) and hard clam (D, 26%), both were unchanged from last year.

Nitrogen is often a limiting factor in plant growth, but excess nitrogen can cause algal blooms.

Dissolved oxygen (DO) is vital for the survival of animal species such as crabs, fishes, and mollusks.



Phosphorus can limit plant growth if it is not abundant enough, or it can cause algal blooms when in excess.

Seagrass growth is another indicator of water quality. Seagrasses are sensitive to changes in water quality.

Chlorophyll *a* is a measure of the amount of algae in the water. High chlorophyll indicates poor water quality (seagrass shading and possible dead zones).

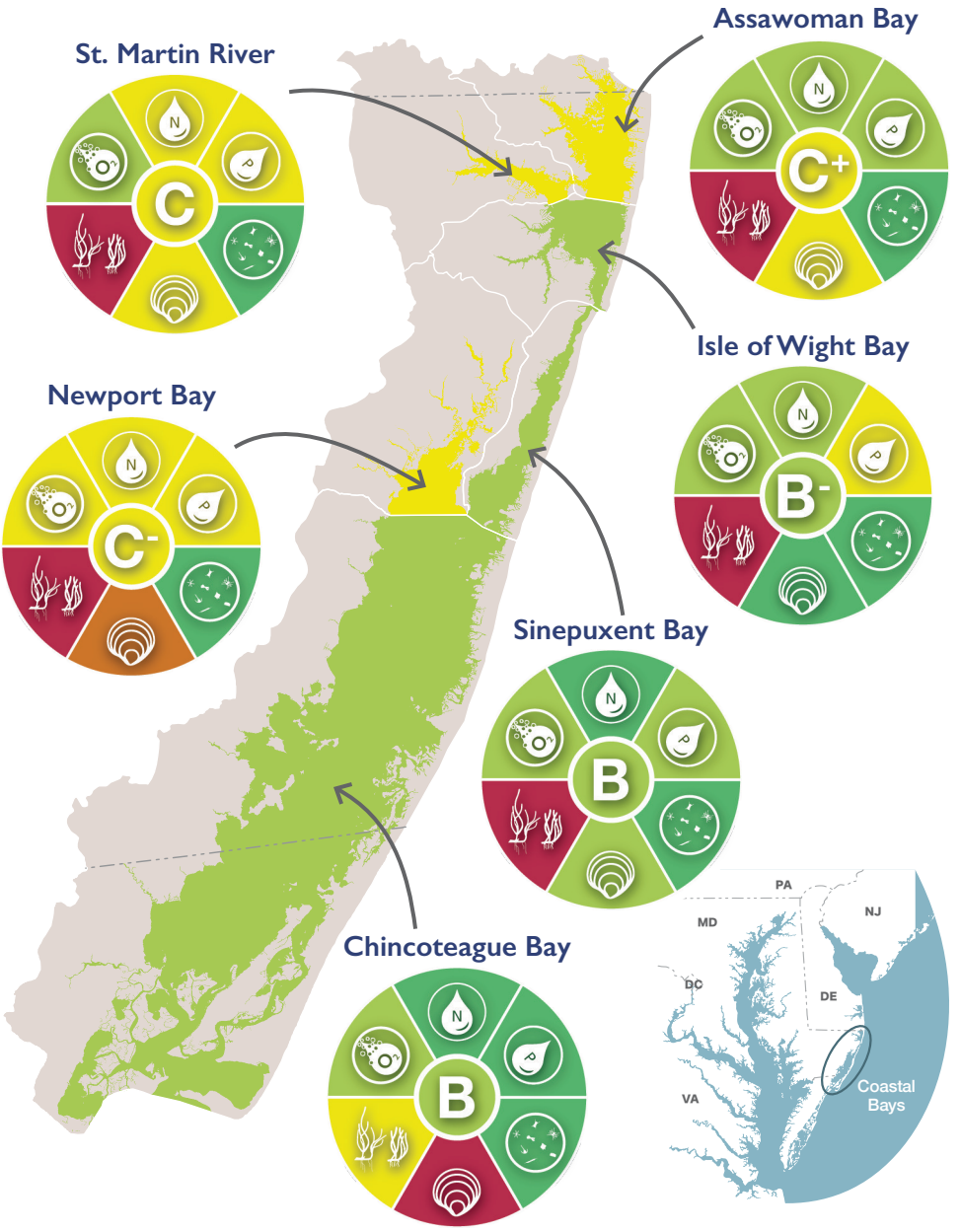
Because they are filter feeders, **hard clams** are good indicator species: species whose health reflects the health of the ecosystem.

A very good 81–100%	B good 61–80%	C moderate 41–60%	D poor 21–40%	F very poor 0–20%



Mixed scores throughout the watershed

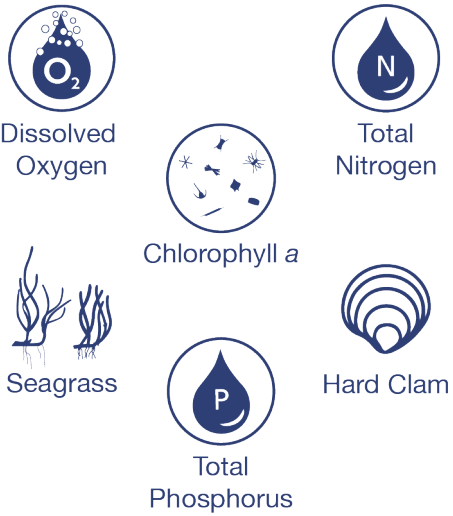
Compared to last year, four of the regions had a lower health index, including Sinepuxent Bay (-7 pts), the St. Martin River (-6 pts), Assawoman Bay (-3 pts), and Chincoteague Bay (-1 pt). The seagrass score greatly declined in Sinepuxent Bay (-33 pts), resulting in a decrease in the region grade (B+ to B). The health index score for Isle of Wight Bay increased by 9 pts (grade improved from C+ to B-), driven primarily by an increase in hard clam density (+32 pts). However, hard clam scores notably decreased in Assawoman Bay (-41 pts) and the St. Martin River (-20 pts). Despite being the lowest-scoring region, Newport Bay health remained steady with a C-. Phosphorus scores declined in all regions, from -1 pt in Chincoteague Bay to -8 pts in Assawoman Bay. Seagrass scored very poorly (F) in all regions except for Chincoteague Bay, which had a moderate score (C).



Scoring the report card

Report cards are a useful tool to evaluate the health of an area, backed in scientific method and rigor. After indicators are selected based on community concern and available data, subject matter experts use scientific publications, local knowledge, and historical trends to develop thresholds for scoring. The year's data is scored against these thresholds on a scale from 0 to 100 and given a grade from A–F, just like a school report card.

Together with Maryland Department of Natural Resources, the Mid-Atlantic Tributary Assessment Coalition, and other experts, the MCBP and UMCES developed scoring criteria for the six indicators assessed in this report card: dissolved oxygen, total nitrogen, total phosphorus, chlorophyll *a*, hard clam, and seagrass.



The six indicators analyzed in the Maryland Coastal Bays Report Card.

Each year, water quality monitoring samples are summarized for each site. The indicators are scored for each site and the site scores average to the region score. These individual region scores are averaged to generate an overall Maryland Coastal Bays score. By scoring each indicator and region, decision-makers are able to pinpoint areas of concern to take action and make improvements.

New revision to the CCMP charts the course through 2035



Cover page of the new CCMP.

Each National Estuary Program across the country is guided by a Comprehensive Conservation and Management Plan (CCMP), developed collaboratively within their focal watershed. As a "living document," the CCMP is revised regularly to keep pace with new challenges. Alongside our partners and community members, the MCBP CCMP was updated in 2025 to guide our collective efforts in protecting Maryland's Coastal Bays through 2035. The resulting document contains four themes representing our goals and priorities for the upcoming decade: Provide Healthy Waters; Protect Fish, Wildlife and Their Habitat; Create Resilient Communities and Ecosystems; and Develop Public Engagement and Partnerships.

The new CCMP focuses on building resiliency in projects and policies, reaching a broad cross-section of the watershed community, and continuing a partnership-based approach to monitoring, restoration, and conservation. This document outlines specific action items for MCBP and its partners across the watershed, highlighting a shared commitment to safeguarding the Coastal Bays.

Gold Star Programs

In 2023, **Ocean City Museum Society** offered MCBP the opportunity to take over the responsibility of an outdoor exhibit space at the end of the boardwalk. Over two years, that partnership developed into the creation of a coastal mural, interpretive signage, three-dimensional exhibit pieces, and online learning resources. In October 2025, the "Life in the Coastal Bays" exhibit was unveiled to encourage exploration, promote stewardship, increase awareness of the heritage of this land, and provide knowledge of the robust ecosystems of the bays to all visitors.



The outdoor exhibit space, Life in the Coastal Bays, donated by the Ocean City Museum Society.

Since 1979, **Maryland Department of Natural Resources' Wildlife and Heritage Service (MDNR WHS) division** has led the initiative to identify, monitor, and protect rare, threatened, and endangered species, colonial waterbirds, wading birds, and osprey in the Coastal Bays. Led by Avian Conservation Ecologist Dave Brinker, the WHS have partnered with MCBP to develop successful projects like the notable Tern Raft and more recent microbeach restoration efforts at Reedy Island. These two projects have provided critical habitat to and increased populations for common and royal terns in our watershed.



Dave Brinker, Avian Conservation Ecologist, monitoring Reedy Island.

The United States Fish and Wildlife Service (USFWS) has been a key partner in MCBP's efforts to restore critical salt marsh habitat in the Coastal Bays. Since 2022, we have partnered to obtain grant funding to implement large-scale restoration covering 500 acres of salt marsh in Sinepuxent and Newport bays by 2030. These innovative restoration projects engage our local youth and community, in addition to providing habitat for fish and wildlife, restoring the natural hydrology and function of the marsh, and increasing resilience for the communities adjacent to the marshes.



A post-restoration photo of one of the salt marsh sites in Sinepuxent Bay.

Thanks to the efforts of the **Chesapeake Bay Trust (CBT) and Senator Carozza**, Maryland's "Protect the Chesapeake Bay" license plate was updated in 2024 to "Protect the Chesapeake and Coastal Bays." This important change recognizes the significance of both of Maryland's treasured estuaries. Even better, a portion of the proceeds from each plate directly supports efforts to protect, restore, and conserve these vital waters.



Official unveiling event of the new MD Save Our Bays license plate.

Engaging our community in restoration

Whole Watershed Funds and the Newport Bay Partnership

The Newport Bay Partnership was established in 2025 with the mission to provide clean water through science and community. Since the degradation and pollution of our natural waterways and saltmarshes is driven by human activities, we must also incorporate people as part of the solution to these challenges.

Newport Bay Partnership
Clean water through science and community

Logo for the Newport Bay Partnership.

The Newport Bay Partnership is doing this through engaging the community in helping to identify, prioritize and implement restoration projects throughout the watershed located in Worcester County. The Partnership includes Worcester County, Town of Berlin, Maryland Coastal Bays Program, Assateague Coastal Trust, and Lower Shore Land Trust. The state of Maryland is supporting this new approach through a $11.25 million investment administered by the Department of Natural Resources through 2031.

USFWS and MCBP Salt Marsh Education and Outreach

The grant funding provided by the USFWS allowed MCBP to launch two new outreach and education programs: Marsh Grasses in the Classes and Engage Your Salt Marsh series. The Marsh Grasses in the Classes is estimated to engage roughly 600 students over the course of two years and creates a unique opportunity to expand teacher's sense of place to our marshes and for students to plant marsh grasses they've grown throughout the year at restoration sites in the watershed.

The Engage Your Salt Marsh is a series of free community programs that aim to teach Worcester County residents about the local salt marsh ecosystems and their importance to fish, wildlife, and humans through storytelling, recreation, and other hands-on learning opportunities.



Students planting the saltmarsh grasses they helped grow at a restoration site.

Access more resources online

For more details about the scores and regions visit **marylandcoastalbays.ecoreportcard.org**.

Explore the work Maryland Coastal Bays Program does to support this unique region at **mdcoastalbays.org**.

Explore the report card

Acknowledgments

This report card was released by the Maryland Coastal Bays Program, the University of Maryland Center for Environmental Science, and the Maryland Department of Natural Resources. All data are from 2025. Thank you to Erick Sahler for the cover design. Thanks to the field crews who collected the data, including the MCBP volunteer water quality monitors, DNR MANTA crews, DNR Coastal Fishery and Shellfish divisions, the National Park Service, and Virginia Institute for Marine Science. Additionally, the authors would like to thank DNR TEA for analyses and MCBP and Worcester County for funding. All photos are from MCBP.