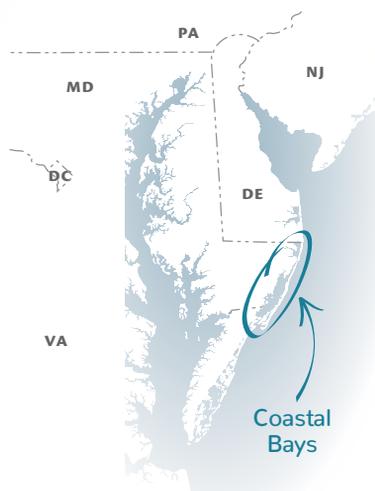
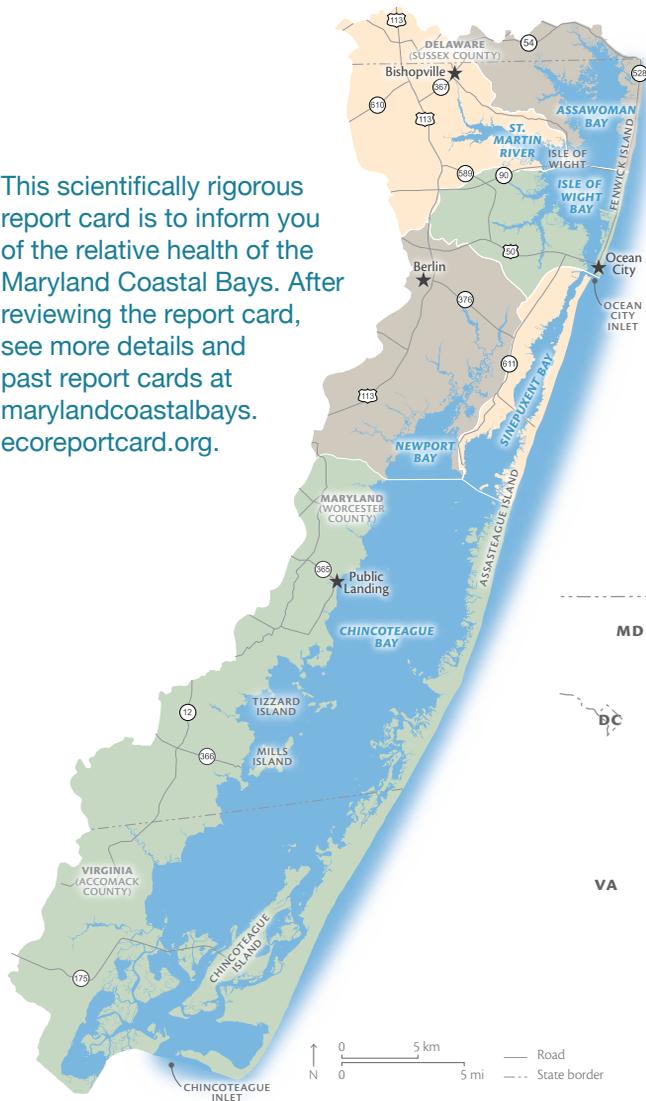


# Coastal Bays REPORT CARD 2017



This scientifically rigorous report card is to inform you of the relative health of the Maryland Coastal Bays. After reviewing the report card, see more details and past report cards at [marylandcoastalbays.ecoreportcard.org](http://marylandcoastalbays.ecoreportcard.org).



# Gold stars for partnerships

Without the assistance of our friends, students, partners, and visitors, the Maryland Coastal Bays Program would not be able to accomplish so much.

★ As part of Take Pride in Berlin week, eighty 6<sup>th</sup> graders from [Berlin Intermediate School](#) assisted with planting an offline wetland behind the Berlin Multi-Purpose Building. In just two days, the students planted over 2,300 plants! Thanks to the students, this Hudson Branch wetland now helps to alleviate flooding and improve water quality.

★ Through a partnership with [Sun Communities' Castaways RV Resort and Campground](#), MCBP's education team executed 23 summer programs on Castaway's bayfront beach. These educational seining programs provided bay knowledge to 450 kids and 155 adults! Castaways provided support for these programs and encouraged visitors to engage in sustainable practices during their stay.

★ [Assateague Coastal Trust's](#) swim guide has been tracking beach water quality trends since 2011. Water samples obtained by the Assateague Coastkeeper and other organizations are combined into the guide to provide a quick reference to water enthusiasts of potential risks from Enterococci bacteria, which is considered the best indicator of fecal contamination of water.

★ The [Ocean City Surf Club's](#) Adopt Your Beach program had 136 streets adopted in 2017. Over 2,000 pounds of trash collected was recorded by volunteers providing valuable information to city leaders. This information is paving the way for source-reduction programs.

★ The Maryland Coastal Bays Program partners with the [Oyster Recovery Partnership](#) through the Marylanders Grow Oysters program to engage 31 waterfront homeowners in growing oysters throughout the Coastal Bays. Annually, young oysters are distributed to volunteers to be grown for one year before being planted on local restoration sites.



Liz Wist

*Wetland planting by students of Berlin Intermediate School.*



Arianna Russo

*Educational programs at Sun Communities' Castaways Campground.*



Zachary Garmoe

*Volunteers grow oysters for restoration with the Oyster Recovery Partnership.*

# Monitoring and assessment challenges

Over the past 20 years, a great deal has been done to determine the health and status of the Coastal Bays. Information to assess the health of the bays is obtained from multiple partners including local governments, volunteers, academic institutions, and state and federal agencies. Data is assessed in collaboration through the Maryland Coastal Bays Program. Continuation of long term monitoring is vital since nutrient loads are heavily influenced by groundwater inputs which take years to reach the bays.

The coastal bays monitoring plan evaluates achievement of water quality goals (seagrass and chlorophyll), as well as if the bays are meeting the 'bay diet' or total maximum daily load endpoints (for oxygen and chlorophyll). Data are also integrated

and presented to managers and the public through State of the Bay reports and annual report cards.

Key indicators are used to inform managers on the progress of actions taken to protect the Maryland Coastal Bays and inform citizens about the health of the bays. Although various factors affect the sustainability of environmental monitoring programs, funding levels influence many aspects of program continuity. Partnerships and leveraging of funding from other sources have helped maintain some monitoring components but there is a need for sustained and dedicated funding for core indicators and even increased funding to implement innovative monitoring programs.



Zachary Garmoe

*Amanda Poskaitis conducting monthly water quality monitoring.*



Brian Stungis

*Molly Struble surveying water quality in the Maryland Coastal Bays.*

## Indicators used in the report card

The aim of this report card is to provide a transparent, timely, and geographically detailed assessment of 2017 Coastal Bays' health. Coastal Bays health is defined as the progress of four water quality indicators (TN, TP, chl-a, DO) and two biotic indicators (seagrass, hard clams) toward scientifically derived ecological thresholds or goals. The six indicators are combined into one Coastal Bays Health Index, presented as the report card score. Detailed methods available at [marylandcoastalbays.ecoreportcard.org](http://marylandcoastalbays.ecoreportcard.org).



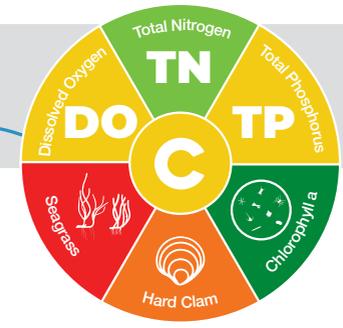
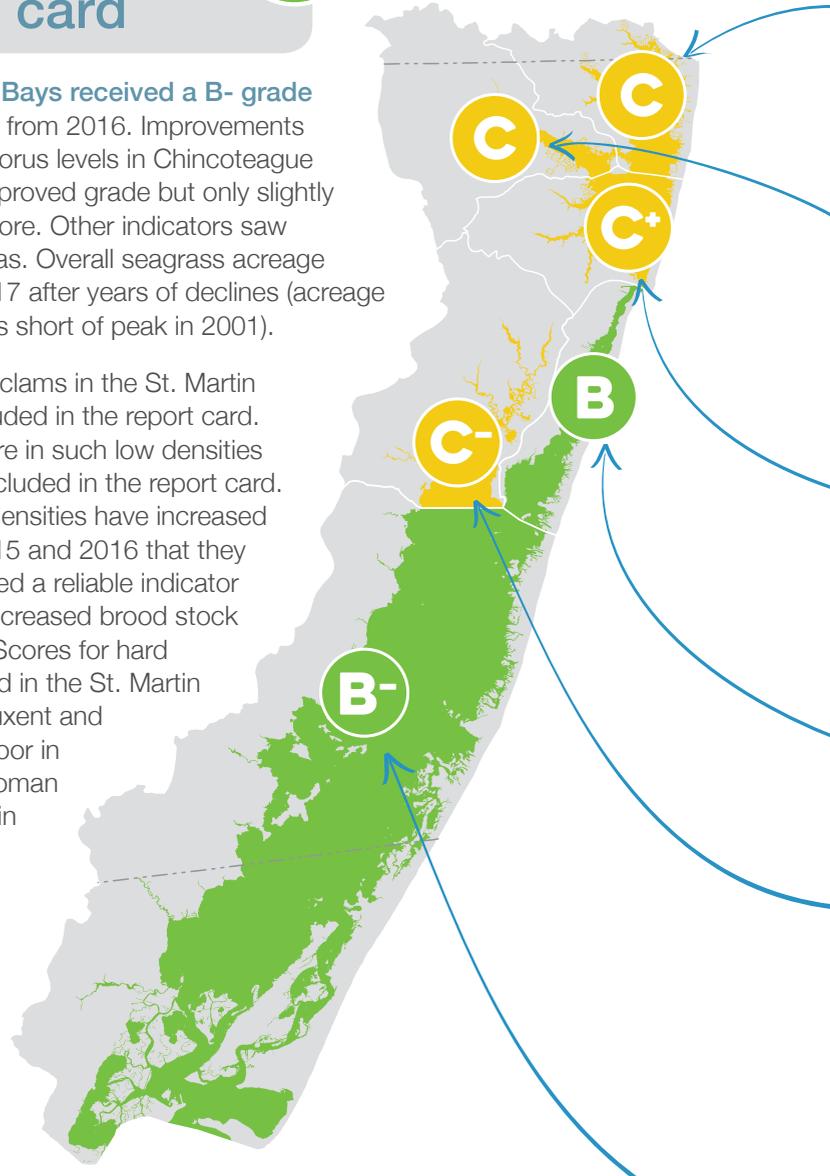
# The Coastal Bays report card

**B<sup>-</sup>**

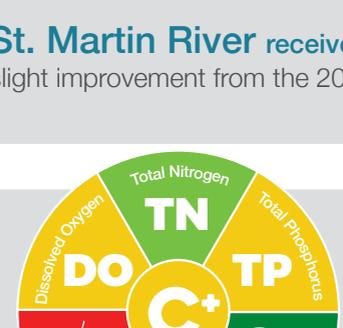
Overall the Coastal Bays received a B- grade with an improvement from 2016. Improvements were seen in phosphorus levels in Chincoteague Bay that led to an improved grade but only slightly higher report card score. Other indicators saw declines in some areas. Overall seagrass acreage was up slightly in 2017 after years of declines (acreage remains 10,000 acres short of peak in 2001).

2017 is the first year clams in the St. Martin River have been included in the report card. Previously, clams were in such low densities that they were not included in the report card. Although still small, densities have increased consistently from 2015 and 2016 that they came to be considered a reliable indicator presumably due to increased brood stock in Isle of Wight Bay. Scores for hard clams were very good in the St. Martin River, good in Sinepuxent and Isle of Wight Bays, poor in Newport and Assawoman Bays, and very poor in Chincoteague Bay.

This assessment is a snapshot in time. It represents the status of water quality, clams, and seagrasses in 2017.



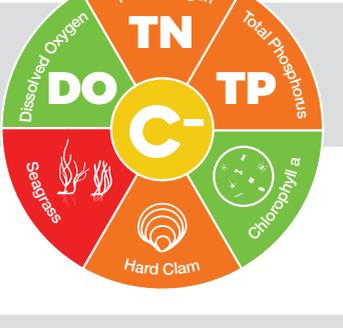
Assawoman Bay received a grade of C, a slight decrease from a C+ last year.



St. Martin River received a C grade, a slight improvement from the 2016 grade of D+.



Isle of Wight Bay received a C+ grade, the same as last year, and was the third highest scoring region.



Sinepuxent Bay received a B grade, the same as last year. This continues to be the highest scoring region.



Newport Bay received a grade of C-, the same as last year. This is the lowest scoring region.



Chincoteague Bay received a B- grade, a strong improvement from the 2016 grade of C+, and the second highest scoring region.

## What do the scores mean?

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



# Discover Your Watershed

Discover Your Watershed is a public engagement series that encourages residents to explore MCBP's restoration and management properties. Five education and service days were offered at sites around the Coastal Bays. Ninety participants planted native trees, removed invasive plants, reconstructed a trail, and learned orienteering, macroinvertebrate sampling, and tree survey techniques.



Amanda Poskalis

Participants sampling macroinvertebrates.

# Lizard Hill wetland restoration

Lizard Hill is a 20-acre sand seepage wetland restoration site built near Bishopville, Maryland in 2011. Water quality monitoring at the site, which flows into the St. Martin River, indicates that the wetland provides nitrogen storage and removal and that the amount of nitrogen retained has increased over the past seven years. In 2017, the wetland removed over one-half ton of nitrogen.



Amanda Poskalis

Part of the wetland restoration site at Lizard Hill.

## The Maryland Coastal Bays Program

The Maryland Coastal Bays Program is part of the National Estuary Program and is a non-profit partnership among the towns of Ocean City and Berlin, the National Park Service, Worcester County, the U.S. Environmental Protection Agency, and the Maryland Departments of Natural Resources, Agriculture, Environment & Planning. The Program goal is to protect and enhance the watershed and waters of the Maryland Coastal Bays.

## Acknowledgements

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Cover photo by Zachary Garmoe.

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