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Lizard Hill wetland restoration
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Cover photo by Zachary Garmoe.

Part of the wetland restoration site at Lizard Hill.

Participants sampling macroinvertebrates.

Lizard Hill wetland

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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.
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 programs but there is a need for sustained and dedicated funding for core indicators and even increased funding to implement innovative monitoring programs.

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.scorecard.org.

What do the scores mean?

The Coastal Bays report card

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.
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What do the scores mean?

Chincoteague Bay received a B-grade, a strong improvement from the 2016 grade of C+. 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.
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As a volunteer program to help restore the Assateague Coastal Tract’s swim guide has been tracking beach water quality trends since 2011. Water samples obtained by the Assateague Coastalkeeper 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.

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