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.

Worcester County has embraced the “Grow Berlin Green” initiative by supporting community clean-ups, rain gardens, and energy conservation projects. Recently, 18 tons of household garbage and furniture was removed from Hudson Branch.

The Town of Ocean City has institutionalized a program to assist homeowners and businesses to reduce nutrients and sediment loading into the bays through grants for pervious pavers, rain barrels, and marsh & dune plantings.

Local residents and visitors have supported with environmental initiatives by volunteering more than 5,000 hours last year to count horseshoe crabs & birds, collect water samples, search for reptiles & amphibians, counting birds, and cleaning up our community.

Maryland Departments of Agriculture & the Environment and the US Army Natural Resources Conservation Service provided the expertise to restore 90 acres of forests and wetlands in Showell. This same area was also the focus of the Comcast Cares Earth Day clean-up, where more than five tons of garbage were collected for proper disposal.

The Maryland Department of Natural Resources continues to work with interested land owners to preserve land in the Coastal Bays watershed. In 2009, the department protected over 400 acres of farms and forests while restoring hundreds of additional acres with natural shoreline and marsh ditch plugging projects.

Note: This project is partially funded through the generous support of the Anderson Rogers Foundation.

Your homework: What you can do

• Plant a rain garden (www.co.worcester.md.us).
• Install a rain barrel (www.epa.gov).
• Use a programmable thermostat.
• Buy energy-efficient light bulbs.
• Plant a tree (www.trees.maryland.gov).
• Hold a neighborhood clean-up.
• Reuse, renew, recycle.
• Donate unwanted items.
• Use reusable cloth shopping bags instead of plastic bags when you shop.
• Become a Maryland Coastal Bays Program member (www.mdcoastalbays.org).
• Work with government and community groups on restoration projects and programs.
• Be a watchdog.
• Convince business owners to use best management practices.

The Maryland Coastal Bays Program

Part of the National Estuary Program, the Maryland Coastal Bays Program is a non-profit partnership between 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.

One of only 28 such programs nationwide, the goal of the Maryland Coastal Bays Program is to protect and enhance the watershed, which includes Ocean City, Ocean Pines and Berlin, Assateague Island National Seashore. The 175-square mile watershed is home to many species.

Harbor seals rest and sun themselves on bay islands—a critical habitat for many species.

Community enthusiasm earned the coveted first-place trophy in the Ocean City St. Patrick’s Day Parade in 2009.

Report card produced and released in June 2010 by the Integration and Application Network at the University of Maryland Center for Environmental Science, EcoCheck (NOAA–UMCES Partnership), and the Maryland Coastal Bays Program.

The data and methods underpinning this report card represent the collective effort of many individuals and organizations working within the Coastal Bays watershed and management community. Detailed methods are available at www.eco-check.org/reportcard/mcb/2009.

The following organizations contributed significantly to the development of the report card: Maryland Coastal Bays Program, University of Maryland Center for Environmental Science, National Oceanic and Atmospheric Administration, Maryland Department of Natural Resources, the National Park Service, and Virginia Institute of Marine Science.

This scientifically rigorous report card is to inform you of the relative health of the Coastal Bays. After reviewing the report card, register online (www.eco-check.org) to receive updates and future report cards.
The overall score for the Coastal Bays was a C+ in 2009. While the northern bays and western tributaries continue to struggle, there are signs of improvement in some areas. However, the southern bays—historically the more pristine of the Coastal Bays—are showing signs of degradation.

Coastal Bays health was similar to 2008

The Coastal Bays received a grade of C+. Scores for total nitrogen in Sinepuxent and Chincoteague Bays were very good, yet ranged from poor to moderate in other regions. Extremely high phosphorus concentrations were present throughout the Coastal Bays which may be indicative of changes in ecosystem processes. Dissolved oxygen scores were generally poor to moderate and had the least separation in scores among reporting regions. Chlorophyll a was very good to good compared to health-based thresholds in all regions of the Coastal Bays. Seagrass and hard clam scores tended to be moderate to very poor, except for seagrasses in Sinepuxent Bay, and hard clams in Isle of Wight Bay, which were good. This assessment is a snapshot in time. It represents the status of water quality, seagrasses, and clams in 2009. Future report cards could include additional indicators such as brown tide, blue crabs, and fisheries.

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The Coastal Bays report card

Coastal Bays Health Index

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Dissolved oxygen

Seagrasses

Hard clams

The aim of this report card is to provide a transparent, timely, and geographically detailed assessment of 2009 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 overarching Coastal Bays Health Index, which is presented as the report card score. Detailed methods available at www.eco-check.org/reportcard/mcb/2009.

Shifting water quality

Although water quality did not change significantly from the 2008 report card, long-term data show significant trends are occurring. Improving nitrogen and phosphorus trends have been observed in Kitts Branch and Trappe Creek as a result of removing wastewater discharge from the Berlin treatment plant. However, Chincoteague Bay water quality continues to decline. Nutrients in Chincoteague are from widespread sources such as septic tanks, runoff from land (e.g., fertilizers), ditches, groundwater, atmosphere (e.g., rainfall), and bay sources (sediments and inputs from Newport Bay) which means it will take longer to see results of management actions.

Shellfish were a mixed bag

Clam densities were up in Assawoman, Isle of Wight, and Sinepuxent Bays in 2009. In contrast, clam numbers were only half the 13-year DNR average in Newport and Chincoteague Bays. Relative to historic bay levels, clam levels were lowest in the Maryland portion of Chincoteague Bay. In addition, scallops have not been found in Chincoteague Bay since 2005—likely the result of annual brown tide blooms.