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The Army Corps of Engineers, Baltimore District, dredged the commercial harbor in Ocean City to keep it open for large fishing vessels while making beneficial use of this material by creating new islands in the coastal bays. The new islands will be important habitat for many species of wildlife in the bays, including the colonial nesting birds.

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The National Park Service at Assateague Island National Seashore continued to enhance salt marsh habitat along Assateague Island by restoring at least 25 additional acres of coastal salt marsh that were created during the 1940s. Project monitoring has indicated a positive response to restoration actions.

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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, and Assateague Island National Seashore. The 175-square mile watershed is home to the treasured resources of St. Martin River, Newpoint Bay, Assawoman Bay, Isle of Wight Bay, Sinepuxent Bay, and Chincoteague Bay.

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Black skimmers are dependent on island habitat in the Coastal Bays

In recent years, dramatic population decreases have been observed in colonial nesting birds. Black skimmers similar to other colonial nesting birds in Maryland and have suffered precipitous declines since the late 1990s. A recent survey indicates that almost 500 acres of islands have been lost since 1989. Island loss corresponds to the sharp declines in water birds that require bare sand for nesting and rearing young. The islands that dot our coastal bays are the last remaining refuges for these birds as they are ideal habitats mostly devoid of predators such as foxes and raccoons and they provide the sandy beaches that are essential to these birds. Colonial nesting birds are especially vulnerable to disturbances by people and pets, who often disturb nests that are difficult to see in the sand.

A notched cut in the dam (seen far right) allowed the water to slowly decant while retaining sediments in the pond. This project is now close to completion.

Worcester County STEP UP STEM intern, Zainah Mirza, provided much needed help to the Program and received some great opportunities in the process.

Maryland black skimmer population trend

Maryland Coastal Bays REPORT CARD 2014
Overall, results are very similar to 2013
These stories and data provide additional insights into the processes, conditions, threats, and resources in the Coastal Bays. Seagrasses improved in the south
Seagrass increased in Chincoteague and Sinepuxent Bays following a four-year decline. Current acreage is 31% of the established goal. The overall increase was due to Chincoteague Bay which increased by over 3,000 acres and is now 91% of its goal. However, northern bays did not fare as well. Assawoman lost 75% of seagrass and no seagrass beds were found. Isle of Wight lost 88% of its seagrass coverage. Small gains were seen in Sinepuxent and Newport Bays. Seagrasses are critical fish habitat and support numerous species of juveniles.
Phosphorus continues to increase
In most areas, phosphorus levels remained above healthy levels, likely influenced by continuing inputs from legacy groundwater. Assawoman experienced the greatest increase with 51% attainment of the goal, followed by Newport (35%) and Isle of Wight (40%). Assawoman (51%) and Sinepuxent (62%) Bays met the phosphorus attainment goal. Too much phosphorus can lead to enhanced algal growth, which results in shading of plants or formation of dense mats of macroalgae that can smother rooted plants and shellfish.
Hard clam densities are better in the northern bays
Surveys indicated that hard clam densities have continued trends seen in previous years. Isle of Wight continued to enjoy densities close to historical levels, although there was a slight decrease this year from last year. Assawoman was relatively stable and low. Sinepuxent and the only bay where densities increased, up to 64% (66% last year) of historical levels. Chincoteague and Newport Bays remained at the lowest densities and were less than 20% of historic levels.
Scores for hard clams were good in Sinepuxent and Isle of Wight Bays and poor to very poor in other regions. Seagrass scores were moderate to very poor in all subembayments. Significant seagrass recovery occurred in Chincoteague Bay while nearly all the seagrass in Isle of Wight Bay disappeared. This assessment is a snapshot in time. It represents the status of water quality, seagrasses, and clams in 2014.

The Coastal Bays report card
Overall, the Coastal Bays received a grade of C+, the same as 2013. Improvements in Newport and Sinepuxent Bays were offset by declines in Assawoman Bay, while the other regions remained stable. Dissolved oxygen scored as moderate in all regions. Scores for total nitrogen in Isle of Wight, Sinepuxent, and Chincoteague Bays were good to excellent, and were moderate to poor in Assawoman Bay, Newport Bay, and St. Martin River. Total phosphorus was moderate to poor except in Sinepuxent and Chincoteague Bays which were good. Chlorophyll a was good to excellent in all regions of the Coastal Bays.
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Indicators used in the report card
The aim of this report card is to provide a transparent, timely, and geographically detailed assessment of 2014 Coastal Bays’ health. Coastal Bays health is defined as the progress of four water quality indicators (TN, TP, chlorophyll 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 http://ian.umces.edu/ecocheck/report-cards/maryland-coastal-bays/2014
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Seagrass improved in the south

Seagrass increased in Chincoteague and Sinepuxent Bays following a four-year decline. Current acreage is 36% of the established goal. The overall increase was due to Chincoteague Bay which increased by over 3,000 acres and is now 39% of its goal. However, northern bays did not fare as well. Assawoman lost 73 acres of seagrass and no seagrass beds were found. Isle of Wight lost 81% of its seagrass coverage. Small gains were seen in Sinepuxent and Newport Bays. Seagrasses are critical fish habitat and support numerous species of juveniles.

Phosphorus continues to increase

In most areas, phosphorus levels continued to be above healthy levels, likely influenced by continuing inputs from legacy groundwater. Assawoman experienced the greatest increase with only 51% attainment of the goal, followed by Newport (39%) and Isle of Wight (40%) Bays. Assawoman (51%) and Sinepuxent (63%) Bays met the phosphorus attainment goal. Too much phosphorus can lead to enhanced algal growth, which results in shading of plants or formation of dense mats of macroalgae that can smother rooted plants and shellfish.

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Surveys indicated that hard clam densities have continued trends seen in previous years. Isle of Wight continued to enjoy densities close to historical levels, although there was a slight decrease this year from last year. Assawoman was relatively stable and low. Sinepuxent had the only bay where densities increased, up to 64% (46% last year) of historical levels. Chincoteague and Newport Bays remained at the lowest densities and were less than 20% of historic levels.

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The Town of Ocean City has created a Green Team and is well on its way to a Sustainable Maryland Certification. Creating a Buy Local campaign, energy audits, the Farmer’s Market and purchasing recycled products are just a few of the many steps the town has documented towards Certification. The town has also created a Green Team and is well on its way to a Sustainable Maryland Certification.

The National Park Service at Assateague Island National Seashore continued to enhance salt marsh habitat along Assateague Island by restoring at least 25 additional acres of mosquito ditches that were created during the 1940s. Project monitoring has indicated a positive response to restoration actions.

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Black skimmers are dependent on island habitat in the Coastal Bays
In recent years, dramatic population decreases have been observed in colonial nesting birds. Black skimmers similar to other colonial nesting birds in Maryland and have suffered precipitous declines since the late 1990s. A recent survey indicates that almost 300 acres of islands have been lost since 1989. Island loss corresponds to the sharp declines in water bodies that require bare sand for nesting and rearing young. The islands that dot our coastal bays are the last remaining refuges for these birds, as they are ideal habitats mostly devoid of predators such as foxes and raccoons and they provide the sandy beaches that are essential to these birds. Colonial nesting birds are especially vulnerable to disturbances by people and pets, who often disturb nests that are difficult to see in the sand.

Maryland black skimmer population trend

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