

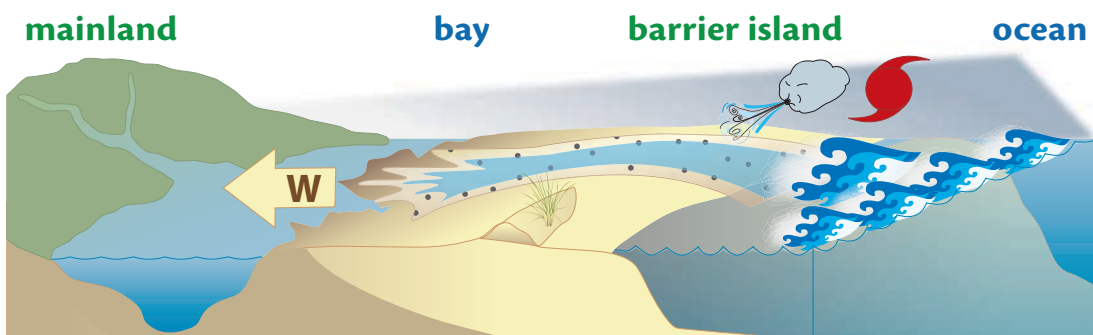
Assateague Island is Changing

National Park Service
U.S. Department of the Interior
Assateague Island National Seashore
Maryland / Virginia



Natural coastal processes, intense storms, and sea-level rise are the dominant forces that continue to shape and move Assateague Island.

Island Overwash and Rollover

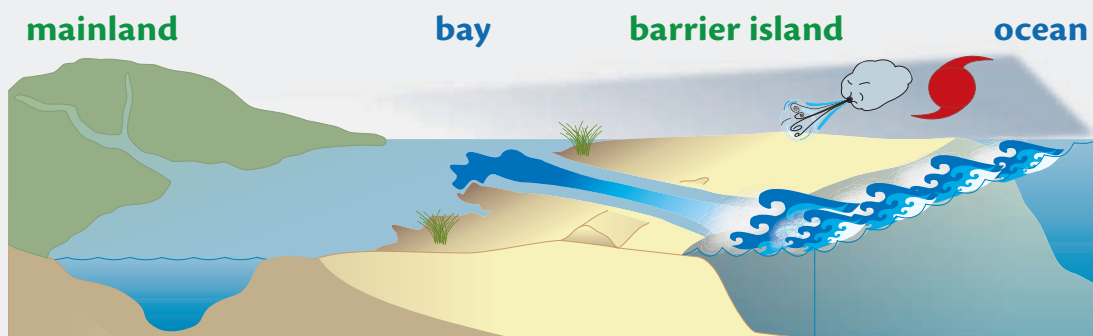


ABOVE The natural process of overwash—the washing of water and deposition of sand toward the island interior—allows the barrier island to migrate or rollover westward in response to moderate rates of sea-level rise.

RIGHT The white line represents the edge of Assateague Island before overwash and rollover occurred.



Historic Inlets and Breaching

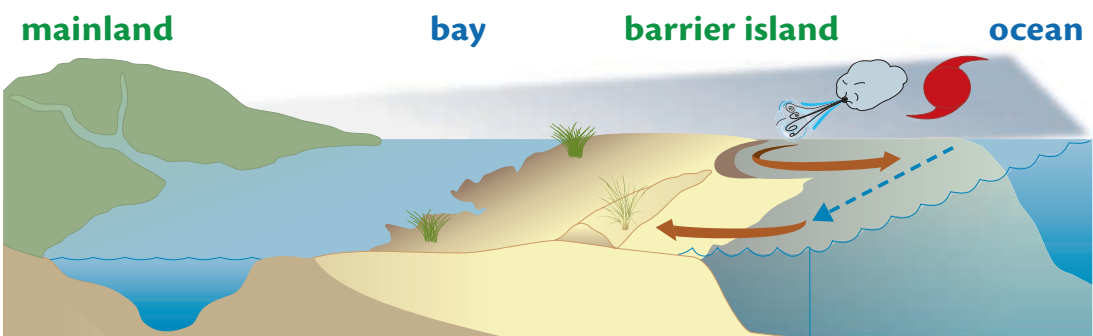


ABOVE With storms opening and longshore currents closing inlets over time, future breaches and new inlets are inevitable as sea level rises and storms intensify.

RIGHT The white lines demarcate the edges of an old inlet and overwash fan that has long since filled in.

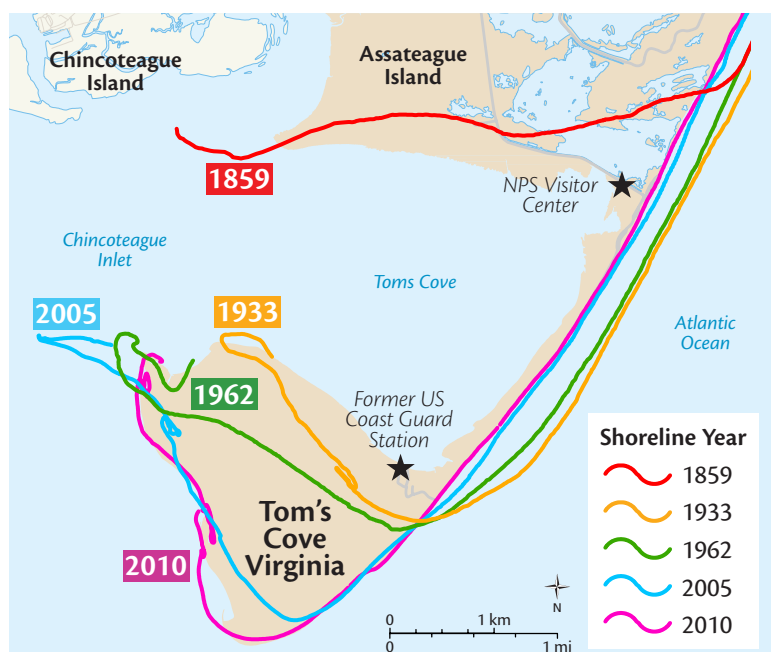


Shoreline Change



ABOVE Storms, wind, and waves pull sand from the dunes and beach into offshore sand bars. This action reduces beach width in some areas and redeposits sand in other areas.

RIGHT Colored lines show the shoreline of Assateague Island at Tom's Cove in various states of change over the past 151 years.



If you would like to know more about the natural processes and other features of Assateague Island, visit *Teach Ocean Science* at <http://ian.umces.edu/link/assateague>.

Managing for Change



“Barrier islands such as Assateague will be especially vulnerable to the effects of climate change and sea-level rise, and we must be able to respond effectively. Although major impacts are not expected in the near term, now is the time to set the stage so that future managers have options available when conditions and circumstances do change.”

—Trish Kicklighter, *Superintendent*
Assateague Island National Seashore
July 2011



Promoting Resilience

When natural habitats are healthier, they can better withstand the stresses placed on them by storms and sea-level rise. Significant resources have been committed to enhance the resiliency of Assateague’s salt marshes in Maryland by filling in ditches built during the 1930s. This unsuccessful attempt at draining the marsh actually increased marsh erosion.



Being Energy Smart

To reduce the National Seashore’s carbon footprint and demonstrate the use of alternative energy, solar panels provide 80% of the power at the new Maryland ranger station. They also provide power for night lights at campground toilets.



Being Climate Ready

New infrastructure at Tom’s Cove, Virginia, includes light weight changing rooms, passive-solar vault toilets, a solar-powered shower, and more sustainable parking areas made of crushed clam shell. These facilities are easy to move and reposition.

Land Management Agencies
■ US Fish and Wildlife Service
■ National Park Service
■ Maryland State Park