

# Rising to the Challenge

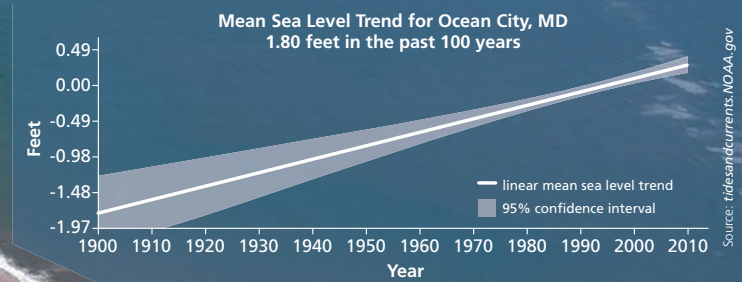
National Park Service  
U.S. Department of the Interior



Ocean City Inlet

Assateague Island

## Assateague Island National Seashore *Changing Landscapes are a Reality*



### Shifting Conditions on Assateague will Impact Nature and People Alike

As global temperatures and sea-level continue to rise, some organisms may thrive on Assateague while others may be replaced by more tolerant species. As storms intensify, the rate at which Assateague will experience overwash and island rollover will increase. Ultimately, very different landscapes may change the access and experience that visitors enjoy today.

### Assateague Island National Seashore Climate Change Projections

climate variable	range of change expected by 2040	size of expected change compared to recent changes	confidence
temperature	↑ 1.8 to 3.5° F	moderate to large	high
sea level	↑ 3.5 to 9 inches	large	moderate
precipitation	↑ 1-6% in cold season ↓ 3-7% in warm season	small to moderate	low to moderate
extreme weather	↑ storm intensity ↑ summer drought ↑ rainfall intensity	small to moderate	low to moderate

## Responding with Solutions

When natural areas are healthier, they are more resilient and can better withstand the stresses placed on them by climate change. At Assateague Island National Seashore, improving the ecological health of the island and its surrounding waters are more important than ever.



### Adapt

As storms intensify and sea-level rises, new park structures are designed so

they can be moved. Parking areas are made of crushed clam shells that reduce storm runoff and are more sustainable than asphalt.



### Restore

In the salt marsh, man-made ditches are being filled in to reduce erosion.

Additionally, stands of phragmites, an invasive grass that displaces native species, are being removed to promote resiliency.



### Protect

Wire enclosures are placed around federally threatened species such

as piping plover and sea beach amaranth. These enclosures protect these species from predation and other disturbances.

“...climate change and sea level rise [are] key factors influencing the future of the seashore. While there is uncertainty about the future pace of climate change and sea level rise, there is near consensus among the scientific community that change is underway.”

—Trish Kicklighter, July 2011  
Superintendent Assateague Island National Seashore

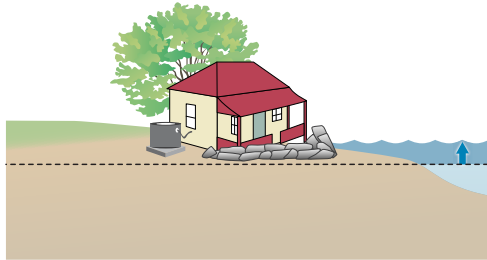
# Climate Change is Happening Everywhere

While places along the coast are particularly vulnerable to sea-level rise and climate change, locations farther inland are also being affected. Gardeners in northern states can now plant fruits and vegetables that used to only grow in warmer areas of the country. Winter recreation seasons are becoming shorter because periods of snowfall are not as intense as they once were. While all of this may make you feel powerless, there are things that you can do to help prepare and even curb the effects of global climate change.

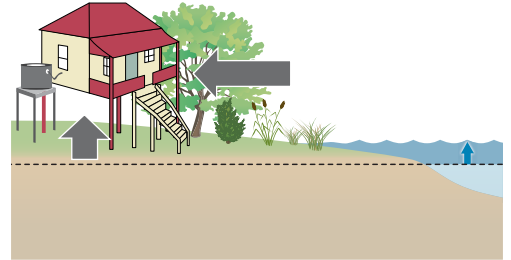
## Adapt

Elevating and moving houses and utilities away from flood plain boundaries make them less vulnerable to storms and may lower flood insurance rates. Rather than building a concrete levy to protect property, consider a natural shoreline that offers the same benefit.

Vulnerable Property



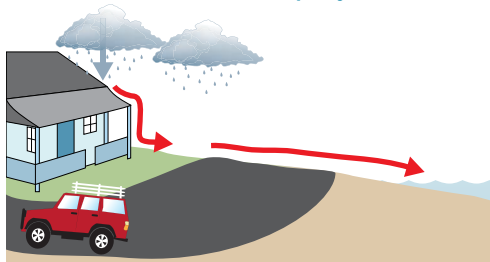
Sustainable Property



## Restore

Replace non-permeable driveways with a surface that allows water to filter through and into the ground. This aquifer recharge helps counter the loss of fresh drinking water that can be quickly drained in periods of drought.

Vulnerable Property



Sustainable Property



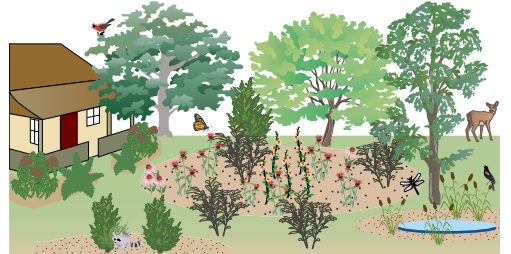
## Protect

In an area where all of the organisms are alike, it is possible to lose an entire population due to a single pest infestation. Landscape with a variety of native, drought-resistant plants to support biodiversity and resilient backyard communities.

Vulnerable Property



Sustainable Property



Visit our educational module on the web at <http://ian.umces.edu/link/assateague> and learn more about Assateague Island, climate change, and sea-level rise. It's fun, interesting, and important material for kids and adults!



For more information on Assateague Island National Seashore, visit [www.nps.gov/lasis](http://www.nps.gov/lasis).

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