

## Creating Living Shorelines

There are approximately 4,360 miles of shoreline within the Maryland portion of the Chesapeake Bay watershed. Thirty percent of Maryland's tidal shorelines are identified as eroding, as well as 14,063 miles of freshwater streams that lead to the Chesapeake Bay. Maryland Chesapeake Bay shorelines are eroding at an average rate of 0.6 feet per year. Although average values can be calculated, site specific conditions must be considered to design shoreline stabilization practices. Erosion along shorelines is a natural but relentless process. Many methods have been utilized to try to slow or stop the erosion process. More recently, the natural approach to shoreline stabilization has been used in many different scenarios with much success.

The natural approach is favored over the structural approach. The structural approach utilizes permanent stone or concrete structures such as bulkheads and revetments and should be used only in high energy areas with high erosion rates. In low energy erosion areas, non-structural practices can be used to slow erosion as part the natural approach. Non-structural practices include fringe marsh creation and coir log edging. Medium energy areas most commonly use hybrid projects. Natural approach hybrid projects include vegetative marsh fringes with sills, groins, or breakwaters. The goal of the natural approach is to establish or restore vegetative marsh areas. Vegetative marsh acts as a buffer that can reduce run-off pollution and act as a nutrient and sediment trap. The root system of vegetative buffers holds the shoreline sand in place, reducing the effects of erosion.



Ordinary Point during restoration (left) and after shoreline restoration (right).

### Where To Get Help for shoreline information

- Cecil County Planning and Zoning should be contacted for Critical Area interpretation and permitting needs **410-996-5225**
- Chesapeake Bay Foundation; [http://www.cbf.org/document-library/cbf-publications-brochures-articles/Living\\_Shorelines011a.pdf](http://www.cbf.org/document-library/cbf-publications-brochures-articles/Living_Shorelines011a.pdf)
- Cecil Soil Conservation District; <http://www.cecilscd.com>; **410-398-4411 ext. 3**
- Shore Erosion Control the Natural Approach  
[http://www.somdrd.org/articles/uploads/1/Shore\\_Erosion\\_Control\\_1.pdf](http://www.somdrd.org/articles/uploads/1/Shore_Erosion_Control_1.pdf)
- Shore Erosion Control: Living Shorelines and Other Approaches  
[http://dnr.maryland.gov/ccs/Documents/training/lsuipa\\_cm.pdf](http://dnr.maryland.gov/ccs/Documents/training/lsuipa_cm.pdf)