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Living Shorelines Projects on the Eastern Shore of Maryland

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Shoreline erosion has gained much-needed attention in recent times. Though extreme events such as hurricanes and rising sea-levels have a profound effect on the land and water dynamics, it is the “low-key” daily tidal and wave action, combined with boating activity, loss of submerged aquatic vegetations (SAVs) and oyster reefs, that have exacerbated the problem. Shoreline protection measures have been in place for a long time, traditionally as “hardened” structural methods, like bulkheads and riprap. Although natural shoreline erosion control techniques like “living shorelines” – marsh edging, sills and breakwaters – have been practiced in Maryland for many years, there has been some renewed interest due to the recent Living Shorelines Act passed by the State of Maryland. Living shorelines have provided immense benefits, which include creation, restoration and protection of wetlands, reduction in the movement of excess sediments into the Chesapeake Bay, and lower influx of nitrogen and phosphorus into the Bay. A monitoring and assessment study was conducted for the projects managed by Maryland Eastern Shore Resource Conservation and Development Council. A GIS database was created to record these findings and also to help in future projects. As a part of this study, 200 living shorelines projects were analyzed. The study sheds light on key parameters used to evaluate the success of the projects, which included type of project, slope and condition of the banks, marsh erosion, structure condition, and the presence/absence of marsh grasses.

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