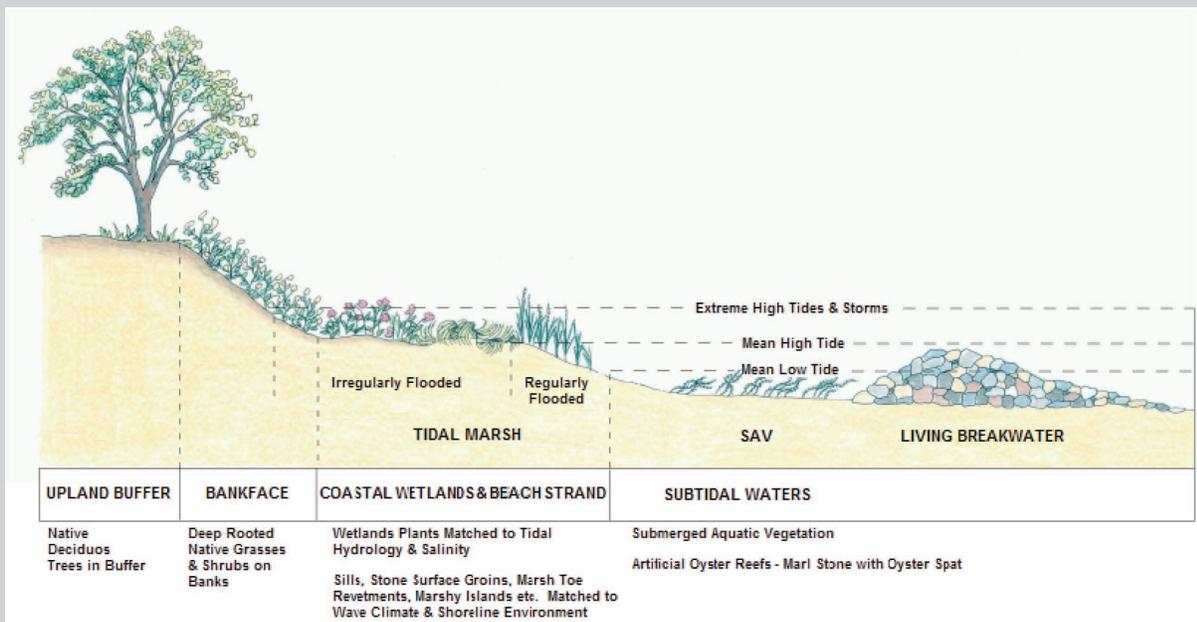


BOX 6.3: Shore Protection Alternatives in Maryland: Living Shorelines

Shore erosion and methods for its control are a major concern in estuarine and marine ecosystems. However, awareness of the negative impacts that many traditional shoreline protection methods have, including loss of wetlands and their buffering capacities, impacts on nearshore biota, and ability to withstand storm events, has grown in recent years. Non-structural approaches, or hybrid-type projects that combine a marsh fringe with groins or breakwaters, are being considered along all shorelines except for those with large waves (from either boat traffic or a long fetch). The initial cost for these projects is often significantly less than for bulkheads or revetments; the long-run cost can be greater or less depending on how frequently the living shoreline must be rebuilt. These projects typically combine marsh replanting (generally *Spartina patens* and *Spartina alterniflora*) and stabilization through sills, groins, or breakwaters. A survey of projects on the eastern and western sides of Chesapeake Bay (including Wye Island, Epping Forest near Annapolis, and the Jefferson Patterson Park and Museum on the Patuxent) found that the sill structures or breakwaters were most successful in attenuating wave energy and allowing the development of a stable marsh environment.



Box Figure 6.3 Depiction of living shoreline treatments from the Jefferson Patterson Park and Museum, Patuxent River. Source: Content developed by David G. Burke for Jefferson Patterson Park and Museum.