

26th Annual International Submerged Lands Management Conference

Living Shorelines Summit Follow-Up: Outcomes and Plans

Speaker: Sandra Erdle

Abstract: In December of 2006, the Living Shorelines Summit brought together marine contractors, policy-makers, landowners, scientists, marine engineers, regulators, local nurserymen, academicians, non-profit organizations and others to discuss the past, present, and future of non-structural erosion control methods in the Chesapeake Bay. These disparate groups together identified gaps and ideas for future actions to promote living shoreline activities in the region. Primary focus areas included 1) Outreach and education; 2) Incentives; 3) Data and tools; 4) Research; and 5) Planning, policy, and regulation. Recommendations by these groups identified mechanisms to: better promote living shoreline practices Bay-wide; improve coordination and streamline activities throughout all levels of government; and identify opportunities to increase funding and incentives for design and construction.

Speaker Information: Sandra Erdle presently works as the Coastal Training Program Coordinator for the Chesapeake Bay National Estuarine Research Reserve in Virginia (CBNERRVA). In this capacity, her goal is to make technical and scientific information readily available to decision-makers in Virginia's coastal zone. Prior to coming to CBNERRVA she worked for 15 years in the Stewardship Program at the Department of Conservation and Recreation's Division of Natural Heritage. She is a new resident of Gloucester County and the mother of twin sons who are now in their third year at the University of Virginia.

Title: Ecosystem Tradeoffs Associated with Tidal Marsh Sills

Name: Karen Duhring

Abstract: Low-profile rock revetments are commonly used in Virginia to stabilize erosion of tidal marsh shorelines or to create a tidal marsh for erosion protection where it does not naturally exist. The theory behind this practice is to enhance the natural capacity of tidal marshes to provide shoreline protection. Encroachment into riparian buffers and subtidal waters may be required to create suitable elevations for tidal marsh vegetation and to create a marsh wide enough for sustainable protection.

Other ecosystem impacts and tradeoffs associated with tidal marsh sills include temporary water quality impacts during construction, potential displacement of subtidal benthic organisms, interruption of nekton access into and out of the tidal marsh plus altered tidal exchange and sediment processes.

Case studies will be used to illustrate these principles and ecosystem tradeoffs of tidal marsh sills in Virginia. The current scientific understanding of this method and minimum design standards for effective shoreline protection will be summarized, including the occasional need to encroach into state-owned submerged lands. Site conditions will be revealed where this practice can be used effectively with the least amount of adverse impact to the tidal shoreline ecosystem.

Spaker Information: Karen Duhring has a master's degree in Coastal Management from the Florida Institute of Technology and 19 years of experience in this field working in coastal regions of Florida & Virginia. For the past 7 years, she has been a shoreline advisory scientist at the Virginia Institute of Marine Science (VIMS) in Gloucester Point, VA. She provides shoreline information and outreach education for waterfront property owners and regulatory agencies. Her expertise includes the cumulative impacts of coastal development on riparian and wetland habitats, native habitat & landscape restoration, and low impact shoreline stabilization.