

**ASBPA October 12-15 2010 Conference Abstract Submittal for  
“Federal, state, and local coastal policy issues.”**

**Abstract**

**Development of Erosion Control Structures Design  
to Address Regulatory Policy and Minimize Downdrift Impact**

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**May 3, 2010**

Shore protection structures typically stop shoreline recession but allow erosion to continue in the form of deepening of the profile in front of the structure or transfer of erosion to the downdrift shoreline, whereas erosion control structures ideally reduce the transport gradient that results in erosion by modifying wave energy and currents that create the erosion stress. The regulatory distinction between shore protection structures and erosion control structures, however, is not always clear. This can adversely affect the regulatory review process where policy has been based on the premise that structures in general adversely affect littoral process, in particular with respect to downdrift impacts. This paper presents a discussion of these issues and the importance of the functional distinction between different types of structures with respect to potential regulatory policy issues and adverse impacts, and provides an overview of a structure design concept developed specifically to address regulatory technical concerns over downdrift impacts. This design concept was first permitted and applied on a project in Florida in 1998, and has since been incorporated in six additional completed projects and two that have received permits but have not yet been constructed. A summary of pertinent regulatory policy relative to erosion control structures and the level of success in achieving project design objectives for these projects, including the goal of minimizing downdrift impacts, are presented.

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Kenneth K. Humiston, P.E., obtained an M.E. degree in Coastal and Oceanographic Engineering from the University of Florida in 1974. His early career included working for the U.S. Army Corps of Engineers Jacksonville District on both planning and design of erosion control projects, and working within the dredging industry as a quality control engineer on the construction of beach restoration and inlet navigation maintenance dredging projects. He is one of the founding partners of Humiston & Moore Engineers, established in Naples Florida in 1991. He has served on the faculty for the Florida Coastal Law conference in 2008 and 2009, and this presentation covers both regulatory and practical design issues related to the use of coastal structures.