

# Mid Atlantic Region

Continued erosion and migration of the northern end of Assateague Island NS shoreline resulting from the effects of the Ocean City, MD inlet/jetty system is the most significant resource problem facing Assateague park management. Recent research has been conducted to determine what physical changes the island will undergo if no actions are taken and to ascertain whether various measures would mitigate the problem.

Initial research, conducted by the U.S. Army Corps of Engineers, involved surveying and sediment sampling of 20 profiles along the northern 45,000 feet of the island, the development of a sediment budget for the area, and a numerical modeling analysis of historical shoreline changes of the island. Analysis of shoreline position changes from 1849 to 1980 revealed that the Ocean City Inlet and jetty system, to the north, has greatly accelerated the historic rate of island recession.

Research conducted by Rutgers University Center for Coastal and Environmental Studies examined the relationship between geomorphological factors and barrier island vegetation composition. A predictive model developed from this study can assess the consequences of future management alternatives such as the use of off-shore sand to restore historic shorelines.

A second Rutgers study assessed the morphologic, ecologic, and socio-economic effects of alternative strategies for coping with the erosion problem. This work described changes to the resource base through time, given the alternatives/scenarios and the prediction of the significance of these changes to long term management.

The final phase in management efforts to address this problem was a workshop attended by administrators and scientists representing a variety of disciplines. Workshop objectives included the identification and ranking of preferred alternatives for slowing, stopping, or reversing the accelerated erosion and the assessment of potential impacts associated with implementation of these alternatives or the no-action alternative. Three Specialty Groups (Geomorphology/Engineering; Ecology; and Socioeconomics/Planning) for in-depth discussions provided an efficient format and an Executive Summary outlining six alternatives and their impacts is being prepared. Following preparation of an Environmental Assessment, NPS administrators will make a final decision on action.