

Innovative Use of Dredged Materials and Disposal Sites to Reduce Diamondback Terrapin Turtle Mortality & Enhance Nesting Habitats



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The Wetlands Institute, in partnership with the Richard Stockton College Coastal Research Center and Ocean Coastal Consultants Inc., has developed a research project in support of the New Jersey Department of Transportation's Office of Maritime Resources (NJDOT/OMR) comprehensive long-term management strategy for dredging projects and dredged material placement, "Sustainable Capacity Material Management Plan (SCMMP) / Database Development".

On August 31st 2006, official notice was given that the NJDOT/OMR "I Boat New Jersey" grant program awarded \$100,000 to fund research that will identify locations that are suitable for restoration and enhancement of diamondback terrapin turtle nesting habitats with an emphasis on beneficial use of dredged material. Priority areas for terrapin habitat restoration and mortality reduction will be identified using spatial analysis techniques (GIS and remote-sensing) and field visits. Subsequent habitat restoration projects will also be identified.



Wetlands Institute volunteers installing barrier fencing to prevent terrapins from crossing roadways.

In addition, an ad hoc program will be established that offers design and permitting assistance to marinas interested in incorporating the goals of this project.



Female terrapin crossing a busy causeway during the nesting season.

Terrapins are found only in salt marshes along the Atlantic and Gulf coasts of the United States. The diamondback terrapin is classified as a Species of Special Concern in New Jersey. When nesting, terrapins attempt to reach a suitable location for laying eggs above the high tide elevation. For well over a century, terrapins (the only turtle species adapted to life in the brackish waters of coastal salt marshes) have been adversely affected by a variety of human activities. Overhunting has dramatically reduced populations along many parts of New Jersey coast. By the late 1960s, terrapin populations recovered to levels approaching their former abundance, but continuing coastal development has led to considerable habitat destruction, especially of traditional nesting sites on barrier islands and back bay beaches. Along

the Atlantic coast of New Jersey, the search for alternative nesting sites on highway embankments has resulted in large numbers of road-kills every nesting season.

The project will run 1½ years and will focus on Atlantic and Cape May Counties, where a large number of causeways connect the mainland to barrier islands. The intent of this project is to provide an opportunity to enhance terrapin habitat, reduce turtle mortality, expand beneficial uses of dredged material in the State, and improve boating through increased dredged material capacity and forging new partnerships between public, nonprofit and government entities. The implementation and maintenance of a regional dredged material management program is an important goal for the State of New Jersey. NJDOT/OMR is currently developing a comprehensive long-term management program for dredging projects, dredged material placement and dredged material reuse.

