



**US Army Corps  
of Engineers®**

Engineer Research and  
Development Center

# Dredging Operations and Environmental Research (DOER) Program

## **Problem**

With the passage of a host of environmental and fiscal legislation beginning in the 1970's, the Corps of Engineers has been faced with the challenge of maintaining a viable navigation system while protecting the nation's resources. Operational and environmental requirements (e.g., threatened and endangered species, environmental windows, contaminated sediment) of navigation projects have become inseparable. The 21<sup>st</sup> century will see excessive pressure to end aquatic placement resulting in a significant increase in project costs and placement alternatives. As our corporate technology base is diminishing, risk-based assessment and management will dominate, while beneficial uses of dredged material will be a priority.



## **Description**

The Dredging Operations and Environmental Research (DOER) Program will investigate dredging issues in the following areas: 1) Innovative Technologies, 2) Environmental Resource Protection, 3) Dredged Material Management, and 4) Risk.

## **Expected Products**

Technology for increased dredging efficiency and production, life cycle strategies for project management and contracting, risk minimization regarding ecological impact, viable aquatic placement alternatives, efficient and cost-effective confined placement alternatives, predictive technology, expansion of beneficial uses and cost-effective contaminated sediment management will be hallmarks of the DOER Program.

## **Potential Users**

Navigation elements of U.S. Army Corps of Engineers Districts and Divisions, port, shipping, dredging company stakeholders, Federal and state regulatory agencies, consulting firms.

## **Projected Benefits**

Increasing and improving navigation by resolving complex economic and engineering challenges through excellence in operational and environmental applications. Life-cycle decision support and risk management.

## **Program Manager**

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## **Participating ERDC Laboratories**

Environmental Laboratory and Coastal and Hydraulics Laboratory.