

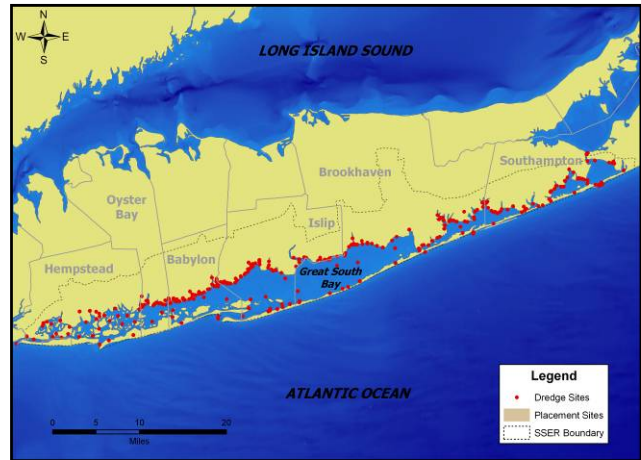
Dredged Material Management Planning: Long Island South Shore Estuary Reserve

Project Characteristics:

- *Assessment of Current Dredging Conditions and Future Needs*
- *Inventory and Distribution Assessment of Contaminated Sediments*
- *Investigation of Opportunities for Improved Sediment Management*
- *Investigation of Beneficial Use Opportunities*
- *Recommendations to Facilitate Implementation*

Woods Hole Group worked during 2008-2010 under contract to the New York State Department of State, Division of Coastal Resources to prepare components of a Dredged Material Management Plan for the Long Island South Shore Estuary Reserve (SSER). The SSER was designated in 1993 by the New York State Legislature as a resource of unparalleled biological, economic, and social value. In 2001 a *Long Island South Shore Estuary Reserve Comprehensive Management Plan* was adopted laying out actions to protect and manage the Reserve. As part of the Management Plan, a regional dredging and dredged material management plan was recommended to provide a strategy for ensuring future navigability within the SSER for commercial and recreational vessels.

Information describing current and future dredging needs was developed through a study of navigation dependent facilities, as well as an extensive review of state and federal permit records issued for navigation related dredging projects. Spatial and attribute information for each dredging and placement site were cataloged in an ArcGIS geodatabase. Relevant information included project ID, applicant type and name, placement location, sediment type, permitted volume, dredge frequency, dredge methodology, as well as future planning level dredge estimates. Where available, data on environmental permits, time of year restrictions, and past dredging activity were also cataloged. A detailed summary of the environmental permitting process for dredging and placement projects in the SSER was generated, including requirements for sediment sampling and analytical testing as a function of placement alternatives.



Data describing the physical and chemical properties of dredged sediments in LISSER were obtained and summarized to show potential areas of concern for future work. Opportunities for improved sediment management to reduce channel infilling were investigated, such as watershed erosion/runoff controls, shore protection structures, and optimized channel designs. A range of beneficial use opportunities for dredged material were identified, including beach and dune nourishment, landfill placement, site remediation, aggregate processing, and environmental enhancement. Parcel level data within the LISSER were also used to screen potential dredged material dewatering sites. Study findings were used to develop a series of recommendations for further investigations and steps necessary to prepare and implement a DMMP for the LISSER.