

PROJECT: Sconset Beach Nourishment, Nantucket, MA

CLIENT: Siasconset Beach Preservation Fund

Epsilon is directing permitting services for the Sconset Beach Preservation Fund for the \$20+ million (2.6 million cubic yard) Sconset Beach Nourishment Project designed to protect over three miles of eroding coastline along the eastern shore of Nantucket Island. Epsilon is coordinating a team of environmental and engineering consultants on the environmental data collection and permitting of this important non-structural shore protection project. This project will protect and preserve Sconset Beach, the historic Sankaty Head Lighthouse area, a bluff walk, historic homes, and public infrastructure. The project has received sign-offs from MEPA after submission of an Environmental Notification Form and Draft and Final Environmental Impact Reports which provided detailed information regarding project design and environmental impacts. A comprehensive Alternatives Analysis and Biological Assessment were submitted as part of the US Army Corps of Engineer's permitting process. Federal, state and local permit review and consultations are ongoing. The Proponent intends to acquire beach-compatible nourishment material from an offshore borrow site in Massachusetts' state waters. Based on consultations with the Massachusetts Division of Marine Fisheries and the National Marine Fisheries Service, Epsilon formulated and performed oversight for a comprehensive Fisheries Sampling Plan intended to accurately characterize marine biological resources and associated habitats in the project area. Epsilon has also provided permitting services for a number of additional shore protection measures along this retreating shoreline; these additional measures have included coastal bank terraces, wells to drain a perched aquifer that was contributing to slumping along the eroding bank face, and experimental beach dewatering systems.



PROJECT: Duxbury Beach Management Plan, Duxbury and Plymouth, MA

CLIENT: Towns of Duxbury and Plymouth, MA



Epsilon Founding Principal Lester B. Smith, Jr. was the primary author of a comprehensive beach management plan for the 7-mile-long Duxbury Beach in the Massachusetts towns of Duxbury and Plymouth. The management plan involved coordination with Duxbury's Endangered Species Program and Coastal Natural Resources Department staff, Town Beach Committee, Duxbury Beach Reservation, Massachusetts Audubon Society's Coastal Waterbird Program, Massachusetts Natural Heritage and Endangered Species Program and many local groups involved in the use of the beach. Duxbury Beach has become a model for beach and endangered species management

PROJECT: Suspended Sediment and Current Velocity Determination, Crystal Lake Bathing Beach, Newton, MA

CLIENT: City of Newton Conservation Commission

This was a project was designed to analyze the conditions generated by the use of an Aqualator water circulation system adjacent to the Crystal Lake Bathing Beach in Newton, MA. The information was requested by DEP as part of an information request in a Superseding Order of Conditions. Epsilon used a Doppler current meter to determine both baseline and operational current velocities in an area adjacent to the bathing beach. Epsilon also collected water samples to determine the baseline and operational levels of total suspended solids in the water column. Epsilon prepared a report that was submitted to the Newton Conservation Commission and DEP.



PROJECT: Coastal Bank Stabilization Permitting, Hinckley Lane, Nantucket, MA

CLIENT: Private Land Owner



This was a multi-stage project involving repair, reconstruction, and stabilization of an eroding coastal bank located 30 feet from a 1920's residence. The project involved the delineation of coastal wetland resource areas and the permitting of a buried gabion revetment and dune nourishment under both State and local wetland regulations. Epsilon prepared and submitted a Notice of Intent applications to the Nantucket Conservation Commission on behalf of the client for the construction of a buried gabion revetment and dune nourishment.