

Menauhant Beach & Dune Nourishment

Project Characteristics:

- *Beach Nourishment Design*
- *Nearshore Disposal Site with Onshore Rehandling*
- *Environmental Permitting*
- *Interagency Coordination*

Woods Hole Group worked for the Town of Falmouth to coordinate, design, and permit a beneficial reuse dune and beach restoration project at Menauhant Beach in East Falmouth. Through an exceptional level of interagency coordination and cooperation, the Town of Falmouth was able to secure sand from a nearby dredging project for beneficial reuse as beach and dune nourishment. NOAA's Northeast Fisheries Science Center (NEFSC) planned a new entrance channel to Great Harbor in Woods Hole to homeport NOAA's new class of research vessel. Woods Hole Group worked closely with the Town of Falmouth, US Army Corps of Engineers, and NOAA representatives to identify a suitable site for beneficial reuse of the 20,000 cy of dredged material from the new channel. The project involved a unique blend of construction methodologies that provided sand for shore protection, reduced overall costs, and prevented loss of beach compatible sand to the offshore Rhode Island Sound Disposal Site.

As part of NOAA's project, the dredged sand was transported via scow to the Menauhant Beach area and dumped in a nearshore disposal site located 2,200 ft off the beach. The Town of Falmouth utilized the Barnstable County Dredge to hydraulically remove the sand from the nearshore disposal area and pump it to Menauhant Beach as nourishment. Woods Hole Group designed and permitted the beach portion of the project to help prevent loss of an important public beach resource, and to minimize storm damages to Menauhant Rd. and associated public utilities. The design called for increasing the crest elevation and width of the existing dunes, and building new dunes across the unprotected parking areas on the barrier beach.



Environmental impact analyses were conducted to assess project impacts on eelgrass and shellfish resources, as well as potential shoaling within the nearby entrance to Bournes Pond. Monitoring and mitigation plans were also developed to track project performance and ensure protection of resources.

Woods Hole Group worked on a tight time schedule to permit the project prior to the start of NOAA's channel dredging. The project was successfully constructed during the fall of 2008 and monitoring is on-going.