



Project Summary

Survey and Mapping

PROJECT NAME AND LOCATION

Fire Island / Southern Long Island
Nassau and Suffolk Counties, NY

PERFORMANCE DATA

Performed 100% of the work
Project fee: NA
Project completed in 1996

OWNER INFORMATION

US Army Corps of Engineers, New York District
New York, NY



KEY PROJECT FEATURES

- ❑ Provided survey and mapping services for 83 miles along the southern coast of Long Island, including Fire Island National Seashore and Robert Moses State Park.
- ❑ Minimized impacts to environmentally sensitive areas while producing detailed survey and mapping products on a fast-track schedule.
- ❑ Delivered high quality materials for the New York District to use as the basis for flooding and erosion prevention plans.

Erdman Anthony (**EA Maps LLC**) served as the lead consultant for the largest assignment awarded by the New York District in over fifteen years, providing complete survey and mapping services for 83 miles along the southern coast of Long Island. This project location, which included Fire Island National Seashore and Robert Moses State Park, had experienced annual westward movement of 500,000 cubic yards of sand and is pounded by 10,000 waves daily. Erdman Anthony's (**EA Maps LLC's**) base data and mapping served as the basis for the New York District's formulation of an interim flood and erosion plan, as well as a long-term erosion prevention plan.

Our staff faced several challenges while collecting data for this project, including limited access to environmentally sensitive areas and a fast-track schedule that circumvented park opening dates and the nesting season of the endangered Piping Plover. The Erdman Anthony (**EA Maps LLC**) team applied several innovative approaches to minimize impacts to the susceptible project areas. Our crews protected the fragile sand ecosystem by lessening the air pressure in the vehicle tires, by carefully planning limited trips to the beaches, and by restricting foot travel around the delicate sand dunes. In addition, Erdman Anthony (**EA Maps LLC**) used large black PVC sheets to make aerial photography targets because the unique wind, tide, and shifting sand conditions rendered conventional methods useless. Despite the challenges in the field, our team was able to produce in shore and offshore mapping at a 1-inch = 200-foot scale with two foot contours for more than 200,000 acres of coastline. Furthermore, Erdman Anthony (**EA Maps LLC**) established forty-two permanent survey monuments and 126 long-range beach profiles with beach sampling. After expending 10,000 staff hours in a seven-month period, our team delivered final mapping in hard copy and digital format compatible with USACE New York's requirements.

Erdman Anthony's (**EA Maps LLC's**) effort on this project will help protect Long Island and its barrier islands from nature's unrelenting assault, preserving this unique ecosystem for future generations to enjoy. Our expertise and innovative approach earned recognition from the Consulting Engineers Council of Pennsylvania for "Engineering Excellence" and from the National Society of Professional Engineers for the "Most Interesting Surveying Project of the Year".