

Long Key Coastal Management History



Long Key developed as a drumstick barrier island with a wide updrift end and a narrow downdrift end. Drumstick barriers develop when wave energy is refracted around the updrift ebb delta causing a local sediment transport reversal. On northern Long Key, sediment was transported onshore as swash bars that eventually welded to the beach. A prograding beach ridge complex formed on the updrift end of the island, creating the triangular shape (1873 above).

In 1873, [Blind Pass](#) was located nearly 2 km north of its present location and was already migrating to the south at the expense of northern Long Key. By 1926, Blind Pass had migrated over 1 km to the south eroding the elaborate system of beach ridges.



Like many other coastal communities in the state of Florida, Long Key began to experience significant beach erosion in the 1950s. This was the result of unregulated coastal development, which included dredge-and-fill construction in the back barrier bays. The above historic postcards of Pass-a-Grille Beach illustrate the total loss of a 150-m wide beach. In an effort to curb this erosion, the city constructed groins, a seawall, and the terminal groin pictured below in 1965.



The wide beach that accreted due to the structure was stabilized with sea oats in the late 1980's.



Today, the beach has been restored to nearly the same width as the turn of the century beach.

Long Key has been maintained by the Pinellas County Beach Erosion Control program since 1980. Upham Beach, on northern Long Key, is presently on a four-year renourishment interval. The project is combined with the renourishment of Treasure Island, the barrier to the north. Upham Beach was renourished during the infamous 2004 hurricane season when four hurricanes made landfall in Florida. Excellent intergovernmental cooperation resulted in a successful project in the face of a potential disaster. This 2004 Treasure Island/Long Key nourishment project received the American Shore and Beach Preservation Association's [2006 Top Restored Beach in America award](#).

After another unprecedented hurricane season in 2005, the U.S. Army Corps of Engineers conducted a study of beach erosion due to the 2005 hurricanes. The [PIR \(PDF 21.5MB\)](#) (Project Impact Report) concluded that the Upham Beach portion of the Long Key project qualified for federal emergency funding. Upham Beach was renourished in September 2006 at 100% federal cost. The project [website](#) provides construction details, environmental impacts, and funding information.

An experimental project called the Upham Beach [Geotextile T-head Groin project](#), shown in the photo below, was constructed in 2005.

The next renourishment of Upham Beach is scheduled for 2009.

