



Village of Key Biscayne Beach Nourishment



Over the years, the Village of Key Biscayne has made significant investments to protect and preserve its shoreline. To support these efforts, Coastal Systems has served as a trusted partner, guiding the Village through a long-term beach management program that focuses on resilience, environmental stewardship, and community enjoyment.

The program includes regular beach nourishment to restore and maintain the Village's 1.1-mile-long beach. Coastal Systems helped secure long-term environmental approvals that allow the Village to replenish the beach as needed—typically every 3 to 4 years—using clean sand from inland sources. This proactive approach gives the Village the flexibility to respond to erosion and storm damage without lengthy permitting delays.

In 2012, one such nourishment project placed 38,000 cubic yards of sand to rebuild storm-damaged sections of the beach, following a carefully managed process that avoided impacts to nearby seagrass beds. Coastal Systems oversaw every stage of the work—from planning and permitting to contractor selection and construction management.

The Village also turned to Coastal Systems for help following Hurricane Wilma in 2005. Working together, they secured over \$1.3 million in FEMA funding for beach and dune restoration. A dune rehabilitation project was completed in 2008, rebuilding lost habitat and adding a buffer against future storms. These efforts strengthened the beach's classification as an "Engineered Beach," which helps ensure continued eligibility for federal support.

The roots of this success go back to 1997, when Coastal Systems first developed a comprehensive beach management plan for Key Biscayne. That plan included an in-depth study of local shoreline dynamics and ultimately led to the 2002 beach and dune expansion project, which added 120,000 cubic yards of sand and helped link the Village's beach to protected parklands to the north and south.

Each project included environmental monitoring and reporting, ensuring that all work met regulatory standards while documenting the beach's performance over time. Today, thanks to this long-term strategy, Key Biscayne enjoys a healthier, more stable shoreline—benefiting residents, wildlife, and visitors alike.