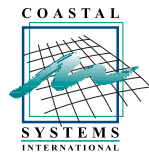


Port Everglades Inlet, Florida



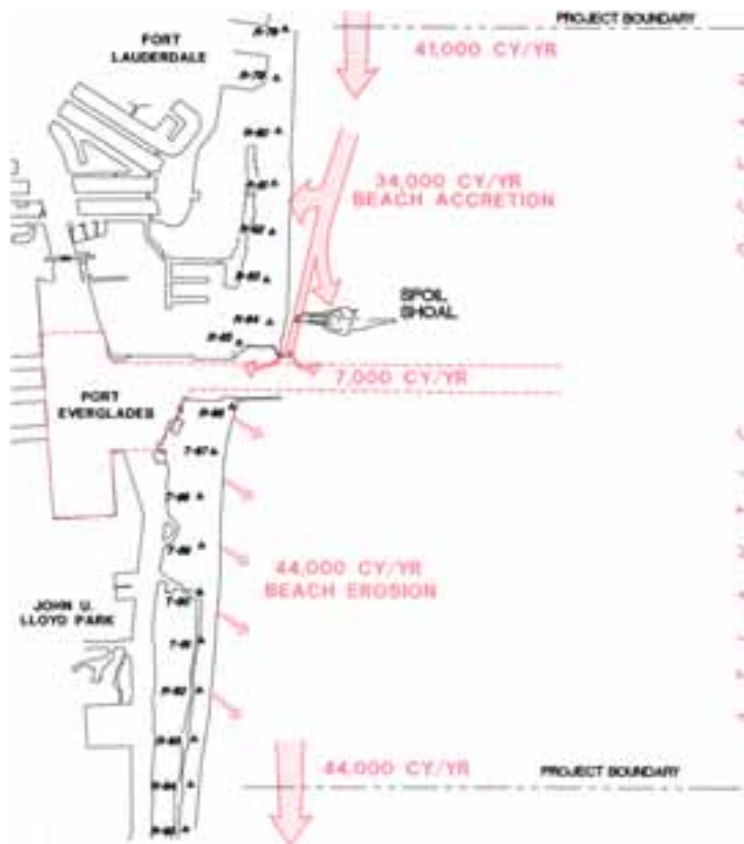
coastal engineering

Coastal Systems International, Inc. created a regional sediment budget as part of a long-term comprehensive inlet management plan for Port Everglades Inlet. Due to its location south of the Inlet, John U. Lloyd State Park experiences severe erosion. The Inlet, however, acts as a littoral barrier to the beaches residing north of it resulting in extreme accretion at these locations. Thorough investigations were conducted including bathymetric surveys and numerical modeling of current/wave interaction in order to develop a sediment budget that achieved 100% sand bypassing to nourish the John U. Lloyd beach.

Coastal Systems evaluated three conceptual alternatives for sand bypassing across Port Everglades Inlet to nourish the beach at John U. Lloyd State Park. The alternatives were selected based on the results of engineering, economic, and efficiency evaluations for the sand bypassing alternatives discussed in the 1994 Port Everglades Inlet Management Plan. The three selected alternatives were evaluated to account for an updated regional sediment budget, man-made activities that contribute to increased sand bypassing at Hillsboro Inlet, and the projected influences of the proposed Broward County Segments II and III beach nourishment projects. An economic analysis was conducted to determine the amortized annual cost over a 50-year project life for each alternative to provide criteria for selecting the optimum sand bypassing alternative.



Port Everglades Inlet



Sand Bypassing Study

Client: Broward County DNRP

Location: Fort Lauderdale, Florida

Date of Completion: 1997

Construction Cost: \$3,020,000

