

PALM BEACH COUNTY  
DEPARTMENT OF ENVIRONMENTAL  
RESOURCES MANAGEMENT  
ENVIRONMENTAL ENHANCEMENT &  
RESTORATION  
DIVISION

**FEBRUARY 2008 STATUS  
REPORT**



**Sea Turtle Update:** Though sea turtle nesting season doesn't officially begin until March 1<sup>st</sup>, the first leatherback nest of the 2008 nesting season was documented in Boca Raton on February 12<sup>th</sup>. This was the earliest recorded nest in Florida since detailed surveys began in the 1980s. Sea turtle nesting season continues through October 31<sup>st</sup>.

**South Lake Worth Inlet**

Approximately 85,000 cubic yards of sand is being dredged from the interior sand trap, the Boynton Boat Club Channel, and the ICW navigation channel to downdrift beaches in the Town of Ocean Ridge. Southwind Construction Corporation of Evansville, Indiana expects to complete the work by April 6.

**Jupiter Beach Park**

Approximately 88,000 CY of sand was dredged from the inlet sand trap to the Jupiter Beach shoreline by the Jupiter Inlet District. The Florida Inland Navigation District is still expected to dredge material from the ICWW during April.

Wave and current data collection for the Jupiter/Carlin Structures Feasibility Study will begin in March, when two ADP instruments will be deployed to measure winter wave conditions. An additional deployment will occur in August to record summer wave characteristics. Data retrieved from the instruments will be used to calibrate the wave models that help determine breakwater design. Following the completion of the County dune restoration project in December 2007, anticipated erosion from high tide events created scarp formations along the dunes. In order to prepare for the start of sea turtle nesting season on March 1, the County used an excavator to knock down the scarp formations and reshape slopes.

**Singer Island Dune Restoration**

During the last month, the beach on Singer Island has experienced a relatively stable period with natural recovery of only a few minor erosional events. The natural accretion of the beach over the last few months has produced a dry beach that, so far, has protected the restored dune from waves and tide. In preparation for turtle nesting season, a compaction survey of the restored dune was completed throughout the project area. One localized section produced results that warranted some proactive tilling measures to soften the dune material.

Planting of the restored dune is nearing completion. Restoration of the construction access easements are expected to begin the 2<sup>nd</sup> week of March.

**Singer Island Erosion Control Project**

Staff has worked with the Corps of Engineer and the County consultant to re-evaluate the list of priorities for permitting the project. The consultant is drafting a scope of work to address these priorities which include the design modifications and modeling, the erosion control line survey and responses to agency comments/RAI's. A draft response to the USFWS RAI has been reviewed by staff. A supplemental change order for the resource survey has been approved.



**Juno Renourishment**

A response to FDEP's second RAI has been submitted and a draft response to comments received from various federal agencies is being reviewed. The reef monitoring plan for the borrow area is being revised and a second draft is forthcoming. The Palm Beach Reef Research Team has scheduled a dive to do a preliminary characterization of the natural reef nearest the borrow area.

**Manatee Protection Plan**

The Manatee Protection Plan (MPP) includes funding for additional on-water law enforcement in the County's waterways. New agreements with the Tequesta Police Department and West Palm Beach Police Department will enhance enforcement activities until the end of the manatee season (March 31<sup>st</sup>).



**Enhancement Reef Program** A single DEP permit for construction on 18 artificial reef sites (10,155 acres) has been issued to ERM. Both inshore and offshore sites are included, covering a wide depth range throughout Palm Beach County. The permit is valid until February 14, 2013. Issuance of the companion ACOE permit is pending.

**Ocean Ridge Shore Protection Project**

The final 24-month biological monitoring report and, the final 12-month physical monitoring report have been submitted to the DEP.

### John Prince Park/Chain of Lakes Restoration

The wetland restoration enhancement project at John Prince Park includes the construction of littoral shelves and open areas for fishing around Square Lake. The material used for the wetland shelves



was dredged using a hydraulic dredge with a 10" swing ladder cutter head. The dredge's discharge line was connected to a v-shaped tank, a tilted



plate baffle system, and a shaftless screw to create a clarifier. The heavy sands and silts were removed by the hydrocyclones and then dewatered over a linear shaker. After the material went through the process, it came out separated and dewatered through 3 units; one unit produced clean sand, the second one muck and silt, and the third one vegetation and debris.

The water discharged from the machine was pumped back into a settling pond where additional muck settled to the bottom and clean water overflowed through a discharge pipe back into the lake. The clean sand was used to construct littoral shelves around Square Lake which were planted with a variety of native plants and will also be utilized as spawning beds for fish. The open areas will be utilized by visitors who will be able to fish from the shoreline, or launch a kayak for paddling around the lake to take in views of wildlife inhabiting the wetland

### Nearshore Mitigation Reefs

Subbottom geotechnical surveys are nearing completion and the sites for two new mitigation reefs have been selected. They will be built just south of the South Lake Worth Inlet and north of the Lake Worth Inlet in less than 15 ft. of water. The reefs modules will be constructed using limestone boulders patterned to maximize biological development and minimize impacts to longshore sand transport. Construction is anticipated early this summer.

### LWL Management Plan Update

The 2008 Lake Worth Lagoon Management Plan (LWLMP) Update has been finalized and will be presented to the Board of County Commissioners (BCC) at their April 1 meeting. The 2008 Update includes an Action for the establishment of a LWL Initiative, in cooperation with the South Florida Water Management District (SFWMD). An Initiative is an interagency effort with the purpose of seeking awareness, support and funding assistance for projects that will improve and protect the natural resources within the watershed. An Initiative will promote stakeholder adoption of the plan, which will increase participation, commitment and funding support. The LWLMP and LWL Initiative are also scheduled to be adopted by the South Florida Water Management District (SFWMD) at their April 10 Governing Board meeting.

The plan can be viewed at: <http://www.co.palmbeach.fl.us/erm/lakes/estuarine/lake-worth-lagoon/>

### South Palm Beach

Throughout February, the recently completed SPB/Lantana dune restoration project remained stable as staff continued to move forward with the design and permitting of an erosion control structure. On February 25, FDEP approved the wave and current data collection plan proposed for the project area. Two ADP instruments will be deployed in order to capture the winter wave conditions. In addition, a scope of work for the Environmental Assessment (EA) and engineering design were received by County staff for review.

### Peanut Island Breakwaters

Peanut Island's eastern and southern shores were severely eroded during last fall, causing loss of park pathways. Parks Department staff have been working to add sand to the beach to restore the shorelines.



ERM staff has been developing plans and applying for permits for three additional breakwaters and jetty reconstruction to provide additional protection to Peanut Island's shoreline from further erosion.