

## Florida Lawmakers Need to do More for Beaches

As the Florida Legislature prepares for their 2017 opening Session on March 7, the state’s coastal communities, including the CEPD, are calling upon government officials and legislative delegation members to become involved and committed to maintaining the State’s most important feature and economic development program – BEACHES. Without a dedicated source of state funding for statewide beach nourishment and a minimum annual funding amount, the legislative appropriations process for beaches is a huge challenge for coastal counties. Just in the current fiscal year alone only 35% of the number of local governments requesting beach erosion control projects received any state match funding, and the amount of state funding totaled just 33% of the total dollars requested. While Florida’s economy depends on pumping sand on beaches, the state’s inadequate level of funding continues to create a project backlog and vanishing beaches.

Just how did Florida beaches get left behind with a backlog of unfunded and unconstructed beach nourishment projects? 18 years ago the Legislature voted into law a plan to spend up to \$30 million a year on beach nourishment with the money coming from a dedicated source - the sale of documentary stamps applied to real estate sales. In 2008 as the recession gripped the nation, the sale of Florida homes and documentary stamp revenues plummeted and lawmakers changed the law to reduce their financial commitment to the state’s beach management program. In 2010 only \$15 million of state funds were committed to preserving the state’s beaches while annual requests averaged \$86 million. The state’s beach program lost more ground in 2014 when Florida voters approved Constitutional Amendment 1 which eliminated any dedicated funding to the state’s beach management program from the sale of documentary stamps.

Adequately funding the state’s beach management program makes good sense for all Floridians. Florida’s beaches are one of the best economically beneficial

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## Maintenance Dredging Begins at Blind Pass

In 2009 the Blind Pass Restoration Project excavated approximately 148,000 cubic yards of material from the pass and placed it on the beaches of Sanibel Island. The project opened the pass and provided a tidal connection between Clam Bayou and the Gulf of Mexico. As part of the long term management of the pass and surrounding ecosystem, periodic maintenance dredging is performed to remove sand that deposits in the pass and is placed on eroded shoreline of Sanibel. In 2012 approximately 63,300 cubic yards was removed from the Gulf side of the bridge and in 2013 another 37,600 cubic yards was removed from the sound.

In response to visible shoaling and a reduced tidal



Shoaling at Blind Pass – December 2010

prism in Blind Pass, Lee County contracted in 2016 with Ferreira Construction to dredge both landward and seaward of the

bridge. Equipment mobilization began this February followed by pipeline setup for the landward side of the dredging beginning at the most eastern portion of the dredging area template and moving into Roosevelt Channel. Upon completion of Roosevelt Channel, dredging of the main channel will recommence. It is anticipated dredging of the area landward of the bridge will be complete and the dredged sand placed on north Sanibel in late March.

By April the dredge will move around the north side of Captiva to the seaward side of the bridge. The seaward dredge of material and placement of sand will complete the north beach fill template on Sanibel with the remaining sand placed in the south template at Bowman’s Beach. Dredging should be complete by late April and followed by resweeps of the site if necessary. The total volume expected to be dredged is 100,000 cubic

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## **“Living” Shorelines Host More Biodiversity than Hardened Structure**

Shoreline protection will almost certainly continue to be a priority as coastal hazards such as storms and sea level rise continue to threaten growing coastal populations and infrastructure. Building hardened shoreline protection structures has been the conventional solution. For some time now coastal environmentalists and restoration specialists have been advocates for nature-based strategies or “living” shorelines. Living shorelines are sloping barriers that mimic natural shorelines. They incorporate a variety of natural elements to create more effective buffers in absorbing wave energy and protecting against shoreline erosion. The natural materials, like sand, salt marshes, wetland plants, sand fill, oyster reefs, submerged aquatic vegetation, stones, and coir fiber logs, create and maintain valuable habitats. However, there has been little research into the ecological consequences of natural structures compared to hard structures like seawalls.

Recently a study published by the Oxford University Press reports seawalls supported 23% lower biodiversity and 45% fewer organisms than natural shorelines. Biodiversity and abundance supported by riprap breakwater did not differ from natural shorelines.



*Dunes like this one on Captiva are an example of a living shoreline*

According to an earlier study conducted by the lead author of this study, Rachel K. Gittman, an estimated 14% of the U.S. coastline is hardened or “armored.” If shoreline hardening continues at its current rate, Gittman says, almost 1/3 of the continuous U.S. coastline could have seawall or other hardened structures by 2100. In many jurisdictions it is easier to get a permit for hard shoreline protection than for soft. For example, the Army Corps of Engineers streamlined applications for hard structures; soft ones rarely qualified for the streamlined process. But U. S. public policy may be catching up. The Corps issued a draft general permit for living shorelines that it plans to implement by March 2017

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## **Mangrove Wetlands the Everglades Keep the Earth Cool**

The cost of fighting climate change in South Florida has mostly focused on the billions needed to install pumps, raise roads, and other measures to combat global warming and keep the region above sea level. But South Florida already has a valuable weapon that has been absorbing carbon and keeping the earth cool for ages: mangrove wetlands in the Everglades.

To provide a dollar benchmark so that a larger



*Mangrove wetlands in the Everglades*

audience will understand that the value of the Everglades is more than providing drinking water and wildlife habitat, Florida International University researchers performed a cost-benefit study to determine just how valuable the mangrove wetlands are. Their findings: the 360,000 acres of mangrove wetlands are valued at between \$2 billion and \$3.4 billion – nearly seven times the amount Miami Beach plans on spending on new pumps to keep its streets dry.

An equally important objective of the study was to show the cost of inaction. If the Everglades continue to suffer from flood control and rising sea levels, the un-restored and deteriorating wetlands could begin to release their stored carbon into the atmosphere. According to the researchers, preventing the loss of stored carbon in mangrove wetlands could become a critical component of the nation's climate change mitigation strategies. “Having an inventory of the stored organic carbon and its potential economic value is key to designing such strategies that secure funding to warrant their conservation and research work,” said Meenakshi Jerath, the lead author of the study. “It could, more importantly, further awaken the public interest and understanding of the mangroves’ socioeconomic importance.” Mahadev Bhat, co-author of the study, said “If there isn’t enough freshwater flowing through

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resources of the state. Yet of its 825 miles of beach, approximately 411 miles are eroding enough to threaten existing infrastructure as well as economic and recreational interests. That's 50% of the state's beach interests faced with extreme vulnerability. Closer to home, it is important to note that Lee County's 47.3 miles of beach ranks 4<sup>th</sup> among the 35 coastal counties in miles of beach front. Approximately half of these miles have been designated as critically eroded by the State.

In 2015 the Legislature's economic forecasting research team, the Office of Economic and Demographic Research (EDR), calculated a return on investment using visitor spending data and the state's investment in the beach management program. The results based on a 3-year model showed a positive return of \$5.40 for every dollar the state invested in beach restoration.

Florida needs local and state decision makers to ensure adequate funds are used to restore its beaches. To fund half of the FY 2016/17 beach project requests will take \$50 million. Reestablishing a dedicated funding source and a minimum annual funding amount for the state's beach management program is critical to saving the state's beaches. The return on investment data clearly demonstrates that citizens and interests throughout the state benefit from a robust Florida beach management program.

### **CEPD Budget: No Tax Increase for 4<sup>th</sup> Straight Year**

**The CEPD Board of Commissioners voted to approve a tax millage rate that would not increase taxes collected by the District from Captiva property owners for the fourth straight year. At the District's Final Budget Hearing held on September 22, 2016, a rolled-back millage rate of 0.2808 per \$1,000 of property value was unanimously approved by the Commissioners. Last year's rate was 0.2901. The rolled-back rate is the rate at which the current tax base would produce the same taxes as levied the previous year. The rate will provide tax revenue of \$362,216 to operate the District for the fiscal year beginning October 1, 2016.**

## "Living" Shorelines Host More Biodiversity

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to make the approval process faster.

There is still a place for hardened structures, however. According to Rob Young, Director of the Program for the Study of Development Shorelines at Western Carolina University, if there are areas that are critical to defend, like a nuclear power plant, then large solid structures are still the best. A 12 to 16 foot storm surge would overwhelm a nature-based structure.



*Workers plant vegetation in front of seawall*

The biodiversity study concludes that as coastal development increases, the type and location of shoreline hardening could greatly affect the habitat value and functioning of nearshore ecosystems. The ecological impacts should be considered when developing coastal shoreline policies and permitting shoreline protection structures.

## 2016 Island Turtle Nesting Sets Record

The Sanibel Captiva Conservation Foundation (SCCF) reported loggerhead turtle nesting on Sanibel set an all-time high record with 636 nests laid and 21,994 emerged hatchlings. On Captiva the rate was the highest since 2000 with 194 nests laid and 3,369 emerged hatchlings. The record occurred despite Tropical Storm Colin and Hurricane Hermine, whose high tides and storm surge washed away 111 nests on Sanibel and 34 on Captiva.

Since 2011 a new phenomenon, coyotes feeding on turtle eggs, has had an impact. However, in 2016 there was a decrease in depredation rates. SCCF thinks this was due to night tagging surveys scaring away coyotes and nest screening (screens placed on the surface of nests to prevent coyotes from digging up the eggs).

SCCF hopes that this is a sign that efforts over the past 20-30 years are starting to pay off and the loggerheads are at the beginning stages of recovery.

## State Website Features Beach Access Guide

The Florida Department of Environmental Protection's Coastal Management Program wants you to know that it now has an easy tool to help both residents and visitors maximize their quest for fun in the sun. *The Florida Coastal Access Guide* is a website as well as a mobile application that provides users an interactive map that displays coastal access points throughout the state. The guide also displays detailed information about each access point such as parking, ADA-accessibility, facilities, shelters, picnic areas, boardwalks, camping, boat ramps, fishing piers, fees and much more. There are more than 2,000 public coastal access sites included in the guide from the Gulf of Mexico to the Atlantic Ocean.

The Guide is organized into 3 coastal regions: the Florida Panhandle, the Southwest Florida Gulf, and the Atlantic Ocean. An interactive map displays access points and allows you to zoom in and out for varying perspectives. Links to relevant information and resources are sprinkled throughout the guide.

*Website:* [www.dep.state.fl.us](http://www.dep.state.fl.us) . Click on the "Florida Beach Guide" icon or scan the QR code.

*Mobile Application:* Find the perfect beach access with the free Explorer for ArcGIS mobile application available for download in the Apple App store and Google Play. Users can search for the guide and save it. Users can also tap any access point and press the information icon for driving directions and a street view.

### SAVE THE DATE

3/8/2017	Regular Board Meeting	1:00 pm
4/12/2017	Regular Board Meeting	1:00 pm
5/10/2017	Regular Board Meeting	1:00 pm
6/14/2017	Regular Board Meeting	1:00 pm
7/12/2017	Regular Board Meeting	1:00 pm
8/9/2017	Regular Board Meeting	1:00 pm

Meetings are held at Tween Waters Inn. The public is welcome.

### Mangroves in the Everglades Found to Store Carbon (Continued from Page 2)

the Everglades, we may eventually lose some of the mangroves. And once you let stored carbon out, that same carbon can lead to increased global warming and cost society a lot more."

Putting a price on the wetlands' value adds to the argument for speeding up restoration of the Everglades. It also provides a number to help people understand why they are being asked to save an ecosystem

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yards. Demobilization and cleanup is expected to be completed by early May.

The project is a cooperative effort of Lee County Board of Commissioners, Lee County Tourist Development Council (TDC), CEPD, City of Sanibel, and Florida Department of Environmental Protection (DEP). Funding is provided by the Florida DEP and the County TDC. The project manager is Steve Boutelle, Operations Manager, County Division of Natural Resources.

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