

FLORIDA SHORE & BEACH PRESERVATION

A League of Cities and Counties on Beach and Coastal Issues

news from the Florida Shore and Beach Preservation Association

April 2018

The 2018 Legislative Session by Deborah Flack, President FSBPA With a 2018 Bill Summary by Diana Ferguson, Rutledge-Ecenia

Beaches secured over \$50 million for the traditional beach management program and a one-time separate appropriation of \$11.2 million for Hurricane Irma storm damage recovery. How far have we come? For more about how beaches fared this

session read the highlights now.

How are you paying for your local coastal management project?

PLEASE HELP by filling out this short survey.



US Army Corps of Engineers.
Jacksonville District

FEDERAL PROJECT STATUS
UPDATES - March 2018

Inlet Stabilization at Stump Pass Charlotte County, FL

Michael Poff, P.E., President Vadim Alymov, Ph.D., Coastal Modeler Coastal Engineering Consultants, Inc.

Learn more about the engineering, design and comprehensive planning efforts that led up to the 2017 Erosion Control Project, including a look forward to the next project. The article starts on page 9.



FDEP Agency Updates

Our Dunes After Hurricane Irma

by the Youth Environmental Alliance (YEA) Team

Now that the dust has settled from Hurricane Irma, we found our newly planted sea oats and dune habitats not only survived but thrived! Learn more about the YEA resiliency dune concept in partnership with the Town of Surfside, the City of Hollywood and Town of Lauderdale by the Sea on page 25.

Save the Date

61st Annual FSBPA Conference September 19-21, 2018 Hyatt Regency Clearwater Beach



About Shoreline



The 2018 Legislative Session Excerpts from the BeachWatch Session Wrap-up (3/14/18)

by Deborah Flack, President FSBPA

On Sunday afternoon, March 11, session ended with passage of the \$88.7 billion Conference Report on HB 5001 (the FY 2018/19 budget), along with the smallest tax package during Governor Scott's tenure (\$168 M). This session will be remembered by the exceptionally high number of bills filed and lowest number of bills passed. 3190 bills were filed and 185 bills passed. Separate House and Senate budgets were passed February 7, and then a week later,

AP's "10 Things to Know about Florida's New Budget"

— ENVIRONMENT: More than \$100 million was included in the budget for Florida Forever, the state's program to purchase environmentally-sensitive land. This is the largest amount set aside for the program since the Great Recession. The budget also includes \$50 million for springs restoration and more than \$60 million for beach restoration programs, including more than \$11 million for beaches damaged by Hurricane Irma.

with the Marjorie Stoneman Douglas High School tragedy everything else faded into the background, as it properly took over budget negotiations and floor time. Yet, funding for Florida's beaches survived and was in fact highlighted by post-session news accounts.

The highlights and policy implications from the 2018 Session that are important in charting a course and strategy going forward are provided in the following excerpts from the session wrap-up for BeachWatch member governments.

Appropriations

STATEWIDE BEACH MANAGEMENT FUNDING

By Week 3, we started in both the Senate Appropriations Subcommittee on the Environment and Natural Resources and the House Agriculture and Natural Resources Appropriations Subcommittee with very supportive funding recommendations for the program. The House included \$54.5M for the traditional program including a few local projects that were part of their separate member appropriations process. The Chair's (Rep. Ben Albritton) Recommendation preserved the current year \$29.5M recurring Amendment 1's Land Acquisition Trust Fund (LATF) allocation, with \$25M in non-recurring trust funds. The House also provided \$25M in non-recurring



General Revenue (GR) as a separate line-item for Irma beach recovery funding.

The Senate Subcommittee Chair's (Sen. Lauren Book) Recommendation fully addressed FSBPA's overriding goal for the 2018 session—\$50M for the traditional statewide program all from a single recurring funding source, LATF. There was no Hurricane Irma funding included. This, is what ultimately passed the House (HB 5001) and Senate (SB 2500) in Week 5, and subsequently served as the comparative side-by side for the Conference Process that began February 28.

Beaches were fortunate that despite a couple of differences in approaches and content between the two budgets there were far more similarities than usual going into Conference, and the funding mix was resolved at the second subcommittee conference pass. At the final conference stop between the full Appropriations Chairs, differences in member projects, total funding amounts, and hurricane recovery funding were agreed upon.

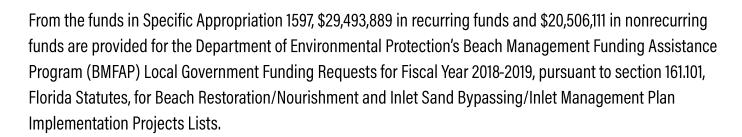
The Details regarding the Traditional Statewide Beach Budget for 2018/19

(Signed by the Governor March 16, 2018, becoming the General Appropriations Act)

1597 GRANTS AND AIDS TO LOCAL GOVERNMENTS AND NON-STATE ENTITIES - FIXED CAPITAL OUTLAY BEACH PROJECTS - STATEWIDE

FROM LAND ACQUISITION TRUST FUND...

50,000,000



This funds Specific Beach Restoration and Nourishment projects 1-20, and all requested post-construction monitoring. (Go to https://floridadep.gov/sites/default/files/FY18_19_LGFR.pdf for project list)

Totals: \$35,250,000

This funds Inlet Sand Bypassing and Inlet Management Plan Implementation projects including post-construction monitoring, in priority order, based on the amount of inlet funding requested as a percentage of the total statewide funding requested.



This is 29.5% of the \$50M appropriation and includes inlet projects 1-4 and part of #5, and post-construction monitoring at 50%.

Totals: \$14,750,000

Funds shall be provided for all post-construction monitoring projects for Beach Restoration/Nourishment and Inlet Sand Bypassing/Inlet Management projects, to be cost-shared equally.

Totals: \$1.3M--\$841,352 for beaches and \$454,400 for inlets.

Any remaining unencumbered surplus funds shall be available for beach and inlet management projects in continued priority order. **This is a new proviso directive for DEP.**

There were two separate non-recurring General Revenue allocations for member projects including Bal Harbour/Bakers Haulover IMP (\$750,000), which was vetoed by the Governor, and additional funding of \$1M for Gulf County's St. Joe Beach Restoration project.

Accompanying budget proviso provides the framework for use of the \$50M and captures the intent of a number of substantive provisions in the Coastal Management Bill (SB 174). Most importantly, there is increased funding emphasis on inlet management, especially major construction components. Proviso also requires the same level of state cost-sharing for post-construction monitoring of both beach and inlet projects, and addresses the bill's intent regarding reprogramming of funds to both beach and inlet projects in continued priority order. This may take on a to-be-determined benefit from the anticipated generous federal funding associated with Irma for a number of projects addressed by the \$50M allocation, freeing dollars to continue funding in priority order down both lists. Proviso is clearly consistent with existing statute.

Beaches secured over \$50 million for a second year in a row during a very difficult session. **How far have we come?** Just 2 years ago, for FY 16/17, the beach program received a total appropriation of \$32.6M. The program also received its first recurring allocation of trust funds trust funds of \$10.1M. You have seen the numbers for the current year (17/18) appropriation of \$50M, \$29.5M in recurring LATF with the remaining \$20.5M in General Revenue. These two amounts have not changed for next fiscal year 18/19, but the source of the \$20.5M has, from non-recurring General Revenue to non-recurring LATF. The legislative allocation for statewide beach program is all LATF for the first time.

Our number 1 goal of securing \$50M in recurring trust funds was not achieved. In fact, there was no new recurring LATF for any eligible Amendment 1 resource management program in the 2018/19 General



Appropriations Act, and not a single bill authorizing such allocations in statute passed this session. Beaches were in good company, and sustaining \$50 million was never a certainty. While Florida Forever was a major winner receiving \$100M, none of it is trust funded, but instead non-recurring General Revenue.

IRMA STORM DAMAGE RECOVERY

One of FSBPA's objectives for the 2018 session was to assist coastal communities with Hurricane Irma storm damage recovery, supporting a separate, one-time state appropriation for local government sponsors to match Congressional (USACE and FEMA) supplemental funding for beaches. FSBPA gave presentations on the funding need for storm damaged beaches to the Senate Appropriations Subcommittee on Environment and Natural Resources (Oct) and the House Select Committee on Hurricane Response and Preparedness (Dec), focusing on funding needs trying to reinforce the \$50 million the Governor had recommended last session for Matthew and this session for Irma. It was a starting point for discussion.

The state fell far short on hurricane recovery funding—the final Conference Report includes a separate line-item appropriation of \$11.2M with accompanying narrowly-drawn proviso. Now, we can only hope and anticipate a substantial federal contribution to the repair of Florida's beaches impacted by Irma through the Corps and FEMA.

During this process, there was a failure to provide the Legislature with enough and timely information to make informed decisions and to justify significant appropriations for beach recovery in a very difficult year, especially given the extensive and varied damages associated with Hurricane Irma. DEP ultimately provided an estimated cost document that exceeded reasonable funding, provided no reliable costs or guidance on prioritizing, and was too late to be seriously reconsidered. It is time for formal discussion among governmental partners regarding the state's capabilities to capture the costs and priorities of identifying preliminary beach recovery needs in order to effectively input the next appropriations process.

COASTAL MANAGEMENT LEGISLATION (SB 174, HUKILL)

Interest and support for the Coastal Management bill remains widespread, as most agree with the necessity of an improved statutory framework to justify increased funding. As you may recall from FSBPA's Beaches and Beyond initiative, SB 174 is the substantive legislation that recognizes annual recurring funding in LATF for beach and inlet projects, increases minimum funding for inlet sand management projects, and improves ranking criteria to better capture economic and storm damage reduction benefits.



The bill passed unanimously in Senate substantive and appropriations committees during early committee weeks in October and November, but there were still no easy answers for getting the House bill (HB 131) heard. When the Senate bill sponsor resigned before session, the bill was accepted by a gracious new sponsor, Senator Dorothy Hukill (portions of Volusia and Brevard). Senator Hukill effectively presented SB 174 on February 1, at its last committee stop, and again shortly thereafter when it passed the Senate – 6 unanimous committee stops and two floor votes. The bill went to the House in Messages, but it had not been heard in the committee of reference, and the committee was no longer meeting. An effort was made to get SB 174 in messages, but it had procedural issues since it hadn't been heard anywhere in the House this session. After exhausting all paths forward, the effort for 2018 was brought to a close.

GOING FORWARD

In the months ahead FSBPA, through the Board of Directors and staff, will begin to develop a framework for what we hope and intend will be a productive 2019 session. Much of our strategy and objectives will be in place, simply awaiting targeted, strategic adjustments. For now, let's appreciate how well Florida's beaches fared with a \$62M appropriation despite this most difficult session. A "repeat" is good reason to celebrate!

FSBPA 2018 Session Bill Summary by Diana Ferguson, Legislative Services, Rutledge-Ecenia

Budget Items of Interest

Non-beach related budget items of interest include:

Florida Resilient Coastline Initiative - \$3.6M

Florida Forever and related land acquisition programs - \$101M

Florida Forever - \$77M Florida Communities Trust - \$10M FRDAP - \$6M Rural and Family Lands - \$6M Working Waterfronts - \$2M

Everglades Restoration - \$248M



Legislation of Interest that Passed

Coral Reefs

HB 53 by Representative Jacobs establishes the Southeast Florida Coral Reef Ecosystem Conservation Area. The bill was signed into law by the Governor on March 19.

Environmental Regulation

HB 1149 by Representative Payne has passed both chambers and has gone to the Governor for final action on or before April 10. This bill contains provisions related to reclaimed water, solid waste recycling, dock and pier permitting, mitigation banking, environmental resource permits, and the C-51.

State Assumption of Federal 404 Permitting Authority

HB 7043 by the House Natural Resources and Conservation Lands Subcommittee and Representative Raschein passed both chambers and was signed into law by the Governor on March 23. The bill authorizes the Department of Environmental Protection (DEP) to pursue assumption of federal 404 permitting. There will need to be rulemaking and memoranda of agreement with the Army Corps of Engineers and the Environmental Protection Agency in order for DEP to assume federal permitting responsibilities.

Legislation of Interest that Failed

Land Acquisition Trust Fund (LATF)

SB 204 by Senator Bradley would have provided \$50M annually from the LATF for St. Johns River restoration or Keystone Heights. It was amended to prohibit LATF from being used to pay certain agency administrative expenses. The bill passed the Senate and died in House messages, as it did not have a companion.

SB 370 by Senator Bradley would have provided \$100M annually for the Florida Forever Trust Fund from the LATF. It passed the Senate and died in House messages. The companion, HB 1353 by Representative Beshears, did not receive a hearing.

HB 7063 by the House Government Accountability Committee and Representative Caldwell would have provided zero dollars in the current budget year for Florida Forever, but would have scaled up from \$57M beginning next year to \$200M over the course of several years. HB 7063 also contained numerous policy changes. It would have split the Florida Forever distribution into thirds, with 1/3 going to Rural and Family Lands, 1/3 for the traditional Florida Forever program and water management districts combined, and 1/3 for Florida Communities Trust. The bill ultimately failed to pass the full House.

HB 339 by Representative Harrell and **SB 786** by Senator Mayfield would have provided \$50M annually to the Indian River Lagoon from the LATF. Neither bill received a hearing.

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Tourist Development Tax

HB 585 by Representative Fine and **SB 658** by Senator Brandes expanded the allowable uses of tourist development tax dollars. HB 585 died in Senate messages. SB 658 died in the Senate Appropriations Committee. However, the provisions of these bills ultimately passed in **HB 7087**, the tax package.

Economic Development and Tourism Promotion

HB 3 by Representative M. Grant and **SB 1714** by Senator Perry related to economic development and tourism promotion accountability. HB 3 died in Senate messages. SB 1714 died in committee.

Fracking

HB 237 by Representative Peters and **SB 462** by Senator Young would have banned fracking in Florida. SB 462 died in its last committee. HB 237 did not receive a hearing.

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Inlet Stabilization at Stump Pass Charlotte County, FL

Michael Poff, P.E., President Vadim Alymov, Ph.D., Coastal Modeler Coastal Engineering Consultants, Inc.

<u>History</u>

Charlotte County's Stump Pass is a tidal inlet located near Englewood in Southwest Florida (Figure 1). It serves as the County's main navigation rout connecting intracoastal Lemon Bay to the Gulf of Mexico between Manasota Key to the north and Palm Island and Knight Island to the south. Stump Pass Beach State Park

occupies the southern end of Manasota Key adjacent to the inlet.

Stump Pass was originally located approximately 6,500 feet north of its present location. A hurricane in 1910 shifted the inlet to its current position which has since remained in generally the same location.

Between 1964 and 1965, the Intracoastal Waterway (ICW) was dredged through Lemon Bay connecting Gasparilla Sound to the City of Venice. The channel

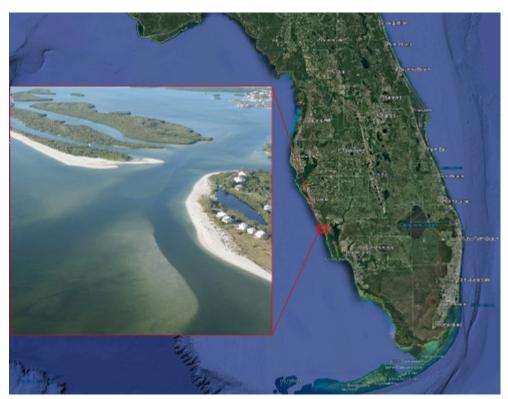


Figure 1. Location Map of Stump Pass in Southwest Florida

was 100 feet wide by 9 feet deep along a general alignment parallel to the shoreline. In general, the dredge spoil was side casted into low relief spoil mounds adjacent to the ICW dredge cut. In the case of Stump Pass, a percentage of the spoil was placed on the flood shoal system. Due to the redirection of tidal prism away from Stump Pass and to the inlets to the north and south, as well as spoil placement within the active system, inlet stability was adversely affected and the wave dominance became more pronounced over the next few decades.

Completed in 1980, the initial dredging of Stump Pass co-sponsored by the West Coast Inland Navigation District (WCIND) and County restored the inlet to quasi-stable conditions. Coastal Engineering Consultants (CEC)



designed the channel along a hydraulically efficient alignment which improved navigation for the local boating community. Approximately 140,000 cubic yards of sand were excavated along three (3) dredge cuts, totaling approximately 8,350 feet in length, from the Gulf of Mexico east to the ICW. Approximately 110,000 cubic yards of beach-compatible sand were placed updrift of the inlet to restore the public beach on Manasota Key. The remaining material, consisting of finer sediments, was deposited in a disposal area created on Grove City Key.

Between 1980 and 1999, a spit reformed on the southern end of Manasota Key and the inlet opening deflected southward, changing in orientation to a meandering channel aligned primarily from northeast to southwest. The channel decreased in depth from about 16 feet in 1955 to less than 10 feet in 1980 to less than 4 feet in 1999.

Left unmanaged, the Manasota Key spit continued to grow and extend southward, further deflecting the channel and eroding the northern interior shoreline of Stump Pass. The inlet impact extended further south resulting in significant shoreline recession and erosion on the downdrift beaches. To address their segment of beach, the Palm Island Property Owners sponsored a beach restoration project. Completed in 1994, the project removed approximately 260,000 cubic yards from the Stump Pass ebb delta and placed the sand on a 3,000-foot segment of shoreline on the northern gulf front shoreline of Knight Island along the Palm Island Resort.

In 1997, the Florida Department of Environmental Protection (FDEP), WCIND, and County met and formulated a short term strategy to manage the inlet on an interim basis while the County initiated development of the Inlet Management Study to determine a long-term management strategy. FDEP outlined criteria for the County to apply for five-year dredging permits. Specifically, FDEP mandated all dredge and fill activities shall be constructed below mean high water (MHW) to minimize the dredge quantity and environmental impacts, and avoid private versus public lands issues. In December 1997, the County and CEC applied for permits that were issued by FDEP and USACE in April 1998. The Interim Dredging Project construction commenced in May and was completed in June. Approximately 175,000 cubic yards of beach-compatible sand were dredged from the existing channel and placed in two (2) nearshore disposal areas on the downdrift beaches of Knight Island. These areas were located on the northern interior shoreline immediately adjacent to the pass and the gulf front shoreline approximately 6,000 feet south of the pass.

A second Interim Dredging Project was completed in February 2001. A total of approximately 133,000 cubic yards of sand were excavated and placed in two (2) beach disposal areas along the adjacent downdrift beaches.



In 2001, the County completed the Stump Pass Inlet Management Study according to which the following shoreline rates were derived for the 1993-1999 time period indicating both the updrift and downdrift beaches were critically eroding.

- shoreline accretion from R-8 to R-11 ranging from 5 to 17 feet per year;
- shoreline erosion from R-12 to R-21 ranging from 4 to 14 feet per year;
- shoreline erosion from R-22 to R-25 ranging from 7 to 80 feet per year;
- shoreline accretion from R-26 to R-30 ranging from 10 to 63 feet per year (resultant of 1994 Knight Island Beach Restoration Project); and
- shoreline erosion from R-31 to R-39 ranging from 5 to 13 feet per year.

The inlet stability analysis concluded that Stump Pass was unstable noting that the tidal prism had reduced approximately 65% since the post 1980 quasi-stable period due to 52% reduction in the inlet throat cross-sectional area. Observations of the adjacent beaches noted during significant storm events, the Stump Pass Beach State Park was breaching several thousand feet north of the inlet and Knight-Don Pedro Island was breaching at the location of a former inlet, Bocilla Pass.

Beach and Inlet Comprehensive Management Planning

During 2001 to 2003, in partnership with Sarasota County, WCIND, and FDEP, Charlotte County and their consulting team led by Coastal Technology Corporation and CEC, performed a Beach Erosion Study, the basis of which led to their first Erosion Control Project (ECP). The ECP was constructed in 2003 and included dredging two borrow areas, a primary borrow area sited along the hydraulically efficient 1980 channel footprint, and secondary borrow area seaward of Knight Island corresponding to the 1994 Palm Island project's ebb shoal borrow area. A total of approximately 925,000 cubic yards of sand were excavated and placed in three (3) beach fill areas along the adjacent beaches: Updrift Beach Fill (UBF) on Manasota Key, North Beach Fill (NBF) on Palm Island, and South Beach Fill (SBF) on Don Pedro Island (Figure 2).

In 2006, the County completed construction of their first Post-storm Recovery and Maintenance Project to offset significant erosion losses attributed to the hurricanes of 2004 and 2005. The Project restored the UBF, NBF and SBF using approximately 450,000 cubic yards of sand from the primary borrow area in Stump Pass. Dunes were restored on portions of the SBF.

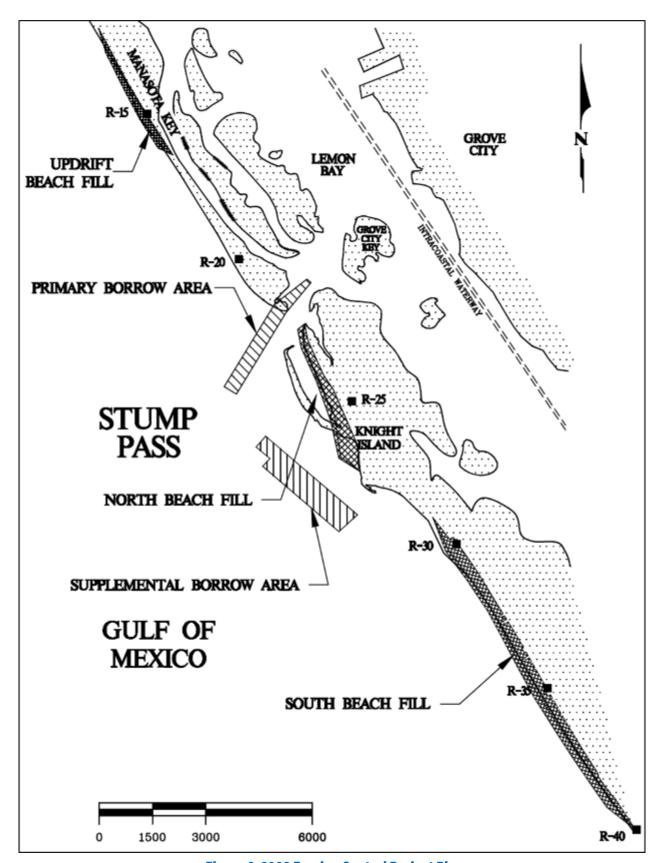


Figure 2. 2003 Erosion Control Project Plan



In 2011, the County completed construction of their second Post-Storm Recovery and Maintenance Project to offset erosion losses from storm events (e.g., Tropical Storm Fay) and to implement the permit required advanced mitigation requirement - specifically, to place the necessary volume of sand within the UBF to offset the erosion losses on the Stump Pass Beach State Park directly attributable to the project's excavation of the primary borrow area. A secondary component of the project was to restore the hydraulic efficiency of the inlet by placing additional sand along the NBF, forcing tidal flow through the dredged alignment. The project used approximately 374,000 cubic yards of sand from the Stump Pass channel. Dunes were restored along the SBF.

Physical monitoring of the original 2003 Project and its subsequent 2006 and 2011 Post-Storm Recovery and Maintenance Projects indicated that the southern end of the Beach State Park became erosional. Further, the downdrift shoreline remained dynamic and the spit formation off Manasota Key continued its growth impacting navigation through Stump Pass.

Terminal Groin

Between 2012 and 2015, the County and their consulting team led by CEC developed a new long-term management plan. Two new components were included. First, a terminal groin was designed to stabilize the shoreline at the south end of the Stump Pass Beach State Park; second, an offshore sand source search was completed and five borrow areas were designed and permitted for beach and dune nourishment.

The groin location was chosen based on the analysis of the post-1980 channel dredging conditions (**Figure 3**). There existed an inflection point where the shoreline recurved to form the south end of Manasota Key's "drumstick". During the design phase of the Project, the structure was initially sited at the inflection point to help recreate the quasi-stable 1980's conditions north of the channel. The final location and geometry were fine-tuned through numerical modeling using the Delft3D model which was calibrated and validated using historic survey data as well as wave and hydrodynamic data collected specifically for the modeling.

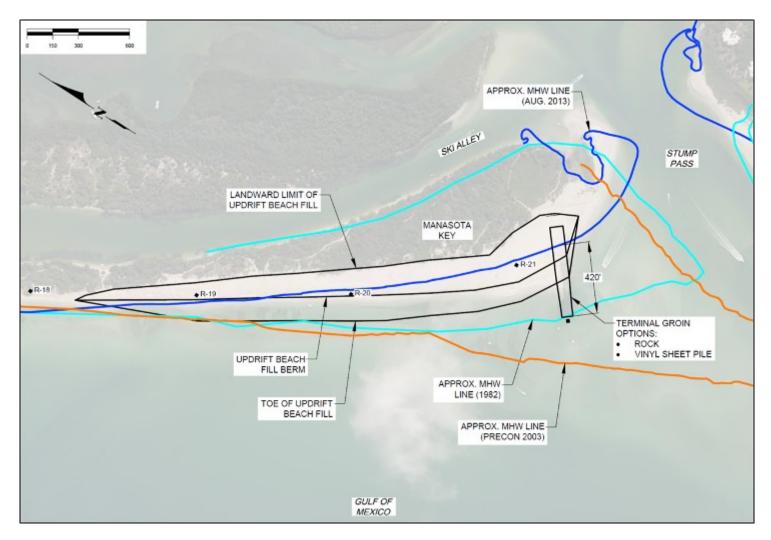


Figure 3. MHW Shoreline Comparisons: 1982 (cyan), 2003 Pre-construction (orange), and 2013 (blue). Note the inflection which indicates a point where the 1982 shoreline recurves to form south end of Manasota Key's "drumstick". Groin was sited at the inflection point to help recreate quasi-stable 1980's conditions north of the structure.

2017 Erosion Control Project

In 2017, Charlotte County completed their next ECP, including post-storm recovery efforts for the UBF and NBF from the 2012 hurricane season (Figures 4 and 5). Over 233,480 cubic yards were hydraulically removed from the navigation channel. Of the total, approximately 145,380 cubic yards were placed within the UBF. The fill extended from R-18 to south of the terminal groin along the Stump Pass Beach State Park shoreline. An additional 23,000 cubic yards were excavated from the terminal groin footprint and placed within the fill template for a total placement volume of 168,380 cubic yards. Over 88,100 cubic yards were placed within the NBF which extended approximately 1,500 feet along the Palm Island inlet shoreline. Approximately 15,000 tons of bedding, core, and armor stone, were used for terminal groin construction (Figure 6). The groin was approximately 250 feet south of R-21 within the Stump Pass Beach State Park. The stone comprising the structure was chinked on the landward segment to make it impermeable, while leaving the seaward segment permeable to allow for sand bypassing. The seaward segment was also sloped to allow for sediment bypassing.

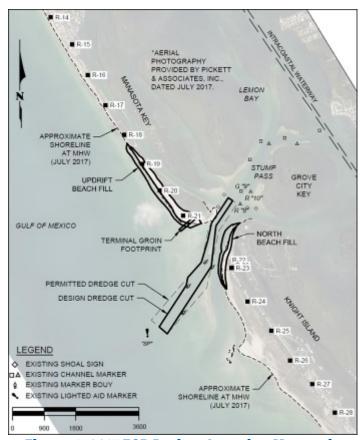


Figure 4. 2017 ECP Project Location Map and Components.

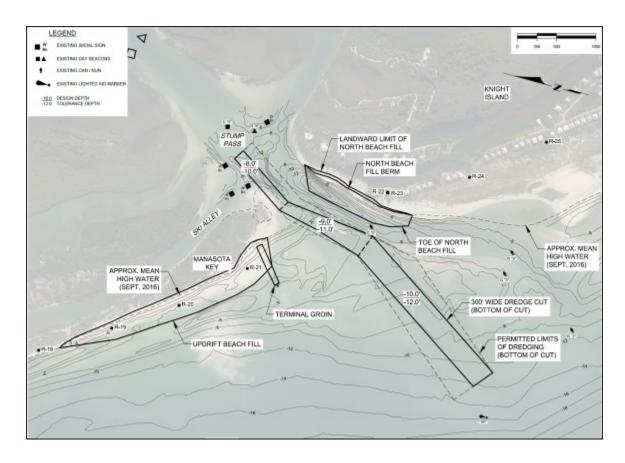


Figure 5. 2017 Project UBF Design Plan with Terminal Groin, NBF Design Plan and Footprint of Dredge Cut.

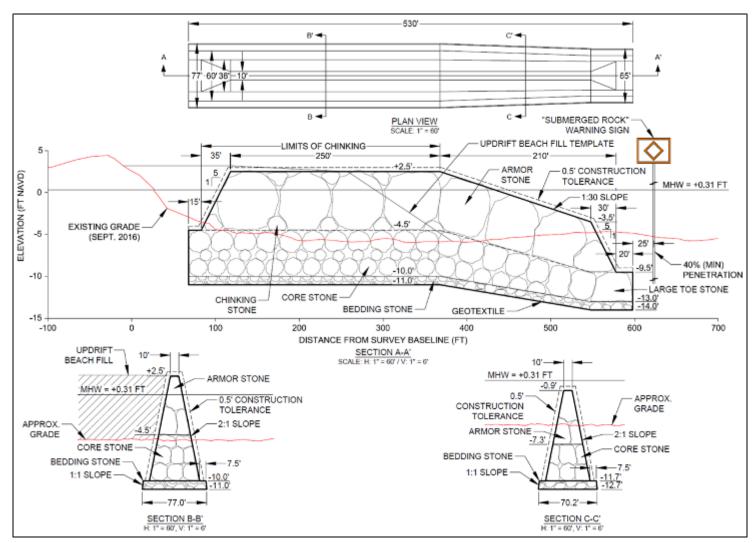


Figure 6. 2017 Project Terminal Groin Design.

Great Lakes Dredge & Dock initiated dredging on March 3, 2017 (Figure 7). The UBF was completed on May 12 (Figure 8). The NBF was completed on June 1 (Figure 9). Luhr Bros initiated construction of the terminal groin on March 18, 2017 (Figures 10 and 11). The high quality bedding, core, and armor stone were brought in on barges from Missouri. Substantial completion was finished on June 1, 2017 (Figure 12).



Figure 7. 2017 Project: View looking North at Starting Point of Beach Fill.



Figure 8. 2017 Project: View looking South at Completed UBF.



Figure 9. 2017 Project: View looking Southwest at Completed NBF.



Figure 10. 2017 Project: Barges from Missouri Arrive with Bedding, Core, and Armor Stone.



Figure 11. 2017 Project: Installing Geotextile Fabric and Placing Bedding Stone to Sink into Place as Foundation of Groin.



Figure 12. 2017 Project: Completed Groin - A Fishing Amenity.



Project costs are summarized in Table 1 along with a comparison to the range of bids. The Engineer's Opinion of Cost was \$5,127,780. Two (2) change orders were executed during construction to increase dredge volume and beach fill quantities resulting in the total cost of construction of \$5,135,720.

Table 1. Opinion of Cost and Bid Summary.

Project Items	Opinion of Cost	Bids		
		Low	High	Average
Beach Fill	\$ 2,945,000	\$ 2,692,500	\$ 5,156,500	\$ 3,369,604
Terminal Groin	\$ 2,182,780	\$ 2,230,970	\$ 2,869,644	\$ 2,914,992
Total	\$ 5,127,780	\$ 4,923,470	\$ 8,026,144	\$ 6,284,596

Monitoring surveys of the Project were conducted in July 2017. **Figures 13, 14, and 15** present the post-construction beach profiles (2017) along with the historic profiles surveyed in 1974, 1982, 2003, and 2011, at R-21 on the south end of Manasota Key within the UBF, R-24 on Palm Island within the NBF, and R-30 on Don Pedro Island within the SBF.

Future Projects

The County is incorporating a fourth shoreline segment, Manasota Key, into their beach management program (Figure 16). The design is complete and currently in permitting. In order to be cost effective, the County has scheduled the initial construction of the Manasota Key segment with the third renourishment along with post-storm recovery (Hurricane Irma) of the SBF slated for 2019-20. The next dredge cycle for Stump Pass with sand placement to restore the UBF and NBF is scheduled for 2021; however, the County will monitor the channel and shift the construction date earlier if the significant shoaling from Hurricane Irma impacts safe navigation and reduces the project life of the 2017 ECP.

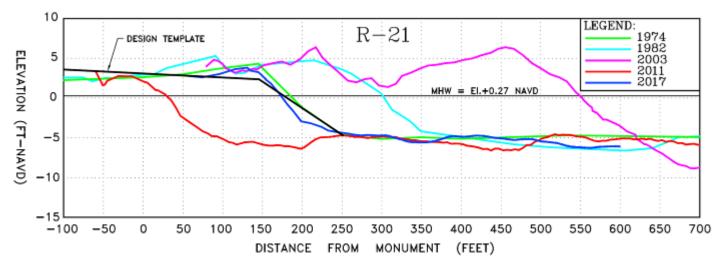


Figure 13. Beach Profile Comparisons at R-21, Updrift Beach Fill.

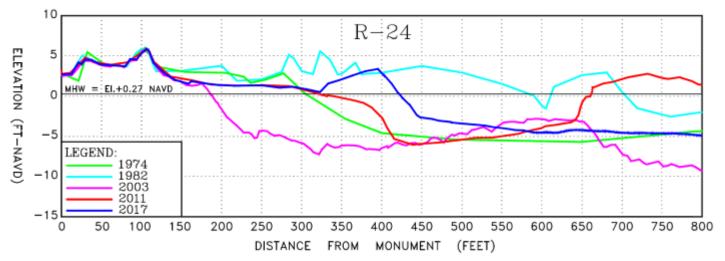


Figure 14. Beach Profile Comparisons at R-24, North Beach Fill.

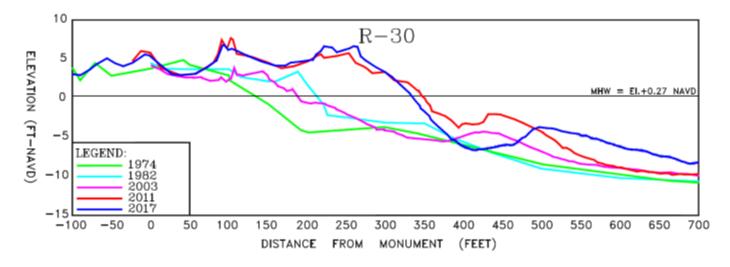


Figure 15. Beach Profile Comparisons at R-30, South Beach Fill.

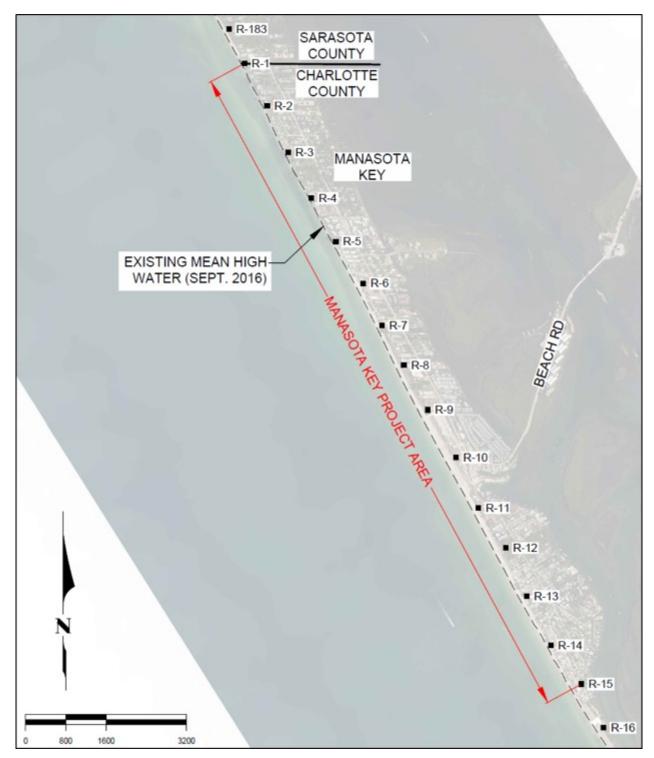


Figure 16. Manasota Key Project Plan.



Our Dunes After Hurricane Irma

by the Youth Environmental Alliance (YEA) Team

Now that the dust has settled from Hurricane Irma, we found our newly planted sea oats and dune habitats not only survived but THRIVED! Only a few beaches with dunes suffered wave scour into the vegetation, and the frontal dune vegetation captured sand blown by those 88mph winds in Broward County. This vegetation buffered further erosion and damage to our coastlines and captured sand, preventing property inundation and "sandblasting" of buildings. Unfortunately, beaches without dunes did not fare so well.

Being a low elevation state surrounded by water on three sides, we are no stranger to the dangers of hurricanes. However, those impacts were dramatically reduced in areas of natural dune vegetation. Plants like sea oats, bay cedar, sea grapes, railroad vine, sea purslane, beach creeper, sea lavender, inkberry and other native Floridian beach plants block wind, capture sand, reduce erosion of sand and soil and help reduce flooding by heavy wave action and storm surge.

Without dunes the Hollywood's Broadwalk was covered in sand that was carried by the heavy onshore winds of Hurricane Irma. Without the natural barrier such as sea oats to capture sand and absorb wind and wave energy, sands were easily lifted and blow over walls and through access points covering the side streets with hundreds of pounds of sand along with debris as well as allowing storm surge to run through the streets.

https://www.youtube.com/watch?v=NlwsCmCaWL4

In areas with plenty of sea oats and other dune plants, there was little to no sand accumulation beyond the dunes as the plants captured sand, slowed wind and absorbed waves. Protecting coastal properties against erosion, sand transfer, and storm surge; while simultaneously building the dune up higher reinforcing the dune system.

The Resiliency Dunes

In 2014 Youth Environmental Alliance and several municipal partners including the Town of Surfside, the City of Hollywood and Town of Lauderdale by the Sea piloted the Resiliency Dune concept.

The main intent of this natural feature was NOT to create another dune, but rather use the natural feature to slow down and buffer the wave energy during storm surge. In the past, storm surge would channel thru beach access points and cause damage to property and vital infrastructure behind the dune. The goal is to use the natural feature to make coastal communities more resilient in dealing with high wind and wave action.

As the picture shows below, the Resiliency Dune did exactly what is was supposed to do; hold back the Storm Surge and protect the valuable property and infrastructure along the coastline.







YEA is dedicated to the education of dune habitats and the restoration of dunes up and down the South Florida coastline. Dunes are vital for the survival and sustainability of beaches which provide Florida with millions of dollars in tourism every year. They also provide a place we go to for relaxation, recreation, and enjoying a beautiful view. We believe with increased education and awareness comes to a greater appreciation and respect for our coastal habitats which aids in the protection of these incredible ecosystems. There are things that you can do to help: Get involved with your local commission, plant coastal natives on your property or volunteer with Youth Environmental Alliance (YEA). YEA along with thousands of students, parents and corporate volunteers, has worked since 2012 to help replant and stabilize the *Southeast Florida coastline*.

The process of replanting protective dunes, is an inexpensive, durable and environmentally sustainable way to restore and protect coastal areas negatively impacted by development, storms, and sea level rise. Furthermore, *YEA* has united those with competing interests, from diverse populations, and from multiple jurisdictions to facilitate collaborative action towards the goal of providing long-lasting, ecologically sound, community-based solutions.

YEA has many restoration opportunities scheduled for 2018, starting with Project ROC (Reclaiming Our Coastline) dates in May and September through December. If you want to help protect the coast, volunteer now! For more information visit our website http://www.yeafrog.org/events/

For more information please contact: Lee Gottlieb Director of Community Outreach Youth Environmental Alliance (YEA) 954-684-0609 lee@yeafrog.org

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USACE Jacksonville District

Federal Project Status Updates March 2018



By Gabriel Todaro Intern, EN-WC USACE Jacksonville District

FEASIBILITY STUDIES:

St. Johns County

The St. Johns County feasibility study is awaiting signature from the Assistant Secretary of the Army for Civil Works (ASA(CW)).

OTHER MAJOR PLANNING REPORTS:

Broward County Shore Protection Project - Segment III

Broward County submitted a letter of interest in March 2016 to request extension of the Federal project an additional 15 years. Broward County is under procurement to obtain a contractor to initiate the LRR for Segment III. The PIR in response to Hurricane Matthew was determined to be negative for both Segment II and III.

Lee County - Gasparilla Island

A Section 934 report has been initiated to determine the Federal interest in extension of Federal participation in cost-sharing from the current 10 years to a 50-year period of Federal participation, or an additional 40 years. The Tentatively Selected Plan (TSP) Milestone Meeting was held on October 17, 2016. The draft report was released for agency and public comment and an Agency Decision Milestone (ADM) meeting was held in February 2017. The final report was submitted to South Atlantic Division in May 2017. ASA (CW) approval is scheduled for June 2018 approval.

Manatee County Shore Protection Project

The Project Delivery Team (PDT) is working on various activities in preparation for the 2022 renourishment and permitting of the expanded borrow area.

Palm Beach County - Jupiter/Carlin Shore Protection Project

Palm Beach County has submitted a draft Section 934 report and NEPA document for the Jupiter/Carlin Segment to extend Federal participation for the next renourishment and out to 50 years of Federal



participation. Following review of the data and report, revisions were recommended to the Beach-fx model. Having received Federal funds for Palm Beach County projects, the model revisions and completion of the 934 report are being conducted at the Jacksonville District. The Tentatively Selected Plan (TSP) Milestone Meeting was held in January 2017; the report was released to the public in March 2017. A successful Agency Decision Milestone was held in May 2017 and the team received approval to move forward with the report. The report was submitted to South Atlantic Division in October 2017 and comments are pending.

REGIONAL SEDIMENT MANAGEMENT (RSM):

The Jacksonville District has been officially named the South Atlantic Division's Center of Expertise (CX) for RSM. With this designation, SAJ will lead a virtual team of subject matter experts from SAD to further operationalize RSM throughout the District. Work has begun to quantify the value of RSM provided by jointly managing navigation, coastal storm risk management (CSRM), and ecosystem restoration projects.

South Atlantic Comprehensive Coastal Study (SACCS) / RSM Strategy

Initial coordination to include scope and Project Management Plan (PMP) development are tentatively moving forward as determination of path forward regarding Authority and funding are finalized.

SAD RSM Optimization Pilot

The pilot has been presented to USACE Major Subordinate Commend (MSC) Operations Chiefs as well as USACEHQ Navigation and other HQ leaders. Feedback has been extremely positive and a meeting will be scheduled with MG Jackson and Mr. Stockton. Roll out to begin with other MSC's.

ENGINEERING AND DESIGN:

Duval County

The Project Delivery Team (PDT) of the Duval County Shore Protection Project (SPP) is developing a renourishment schedule for the approved Project Information Report (PIR) for Rehabilitation Assistance on eroded areas in Atlantic and Jacksonville Beaches. The contract award for the post-Hurricane Irma renourishment is expected to be in July 2018. The notice to proceed (NTP) is expected to be issued in August 2018 and dredging is expected to commence within 90 days of the NTP.

Nassau County

The Nassau County Shore Protection Project (NCSPP) is located from FDEP "R" monuments R-13 to R-33; there has been an existing RSM strategy of placing beach quality material dredged from the Kings Bay Entrance Channel (KBEC) maintenance dredging project and placing within the NCSPP template. Work was scheduled to commence on 17 January 2018 and be completed on 31 March 2018 but there are delays in the arrival of the contractor's booster pump and beach placement will not be completed by the anticipated date.

Sarasota County - Lido Key

No new updates to the project. Two Big Key Milestones Achieved: The PDT release the draft EA/draft FONSI for public comment/review on 30 Mar 2015. The FDEP JCP application was also submitted to the State on 15 Mar 2015. The application represents the latest design of the groins. This is a significant cost savings to the



project (reduction of approximately 11,000 Tons of Granite Armor Stone) and it removes a major hurdle for the project to overcome. A NEPA public meeting was held on 15 Apr 2015 at City Hall City of Sarasota. The public comment period for NEPA closed on 15 May and the PDT is addressing over 300 comments provided by the public through the NEPA process. FDEP provided RAI comment on 15 Apr 2015. PDT has finalized responses to RAI and submitted response to FDEP on 04 September 2015. FDEP requested 2nd RAI on 07 October 2015. PDT is working to respond to 2nd RAI. A newly proposed mitigation site has been identified and the PDT is coordinating with FDEP and FWCC for acceptance. Sarasota County's consultant (ATKINS) has released comments to their Peer review. PDT is working on response to the ATKINS report. PED phase will be complete with acquisition of permit and project will be ready for New Start Construction funding by 1st quarter FY17. SAJ PDT responded to FDEP for 2nd RAI on 1 August 2016. On 31 August the team requested a 30 day waiver to provide FDEP with additional time to review the submitted package and to obtain additional documentation needed from Manatee County. Manatee County approved the use of Perico Seagrass Mitigation site on 28 September. Team received Notice of Completeness from FDEP on 30 September. The Notice of Intent was issued by FDEP 22 December 2016. There are 3 formal petitions of the permit at this time. FDEP is reviewing the petitions to determine if they have merit. The action is to challenge the permit preliminarily issued by FDEP to allow sand re-nourishment of Lido Key Beach. The petitioners are objecting to the proposed sand borrow areas claiming it will cause harm to Siesta Key Beach, aquatic life, and an offshore sand bar used for recreation. The final hearing took place in December 2017. Currently awaiting transcripts to be provided so a formal recommendation can be provided to the judge.

CONSTRUCTION:

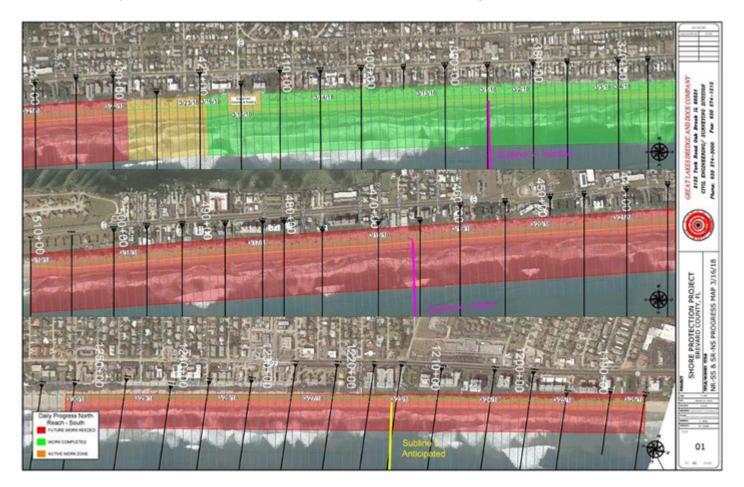
Brevard County Mid-Reach

The General Reevaluation Report (GRR) and Supplemental EIS (SEIS) was approved in September 2014 with the ROD signed by the Assistant Secretary of the Army for Civil Works. The Design Agreement was executed in October 2014 and the Pre-Construction Engineering and Design (PED) kickoff meeting was held in December 2014. The contract was awarded to Shoreline Foundation, Inc on 29 Sept 2016. Construction started in May 2017 and is ongoing. Site 1 placement has been completed and Site 2 placement has been paused due to the winter season. The next placement season begins in April 2018.



Brevard County North & South Reach

Construction for the Brevard County South Reach Project was started on 2 February 2018. The project must be completed by 30 April 2018 due to the environmental window closing.



Dade County Renourishment - Sunny Isles

Construction of the Sunny Isles Truck Haul project was completed on 26 January 2018.

Duval County

All renourishment activities were completed on 25 May 2017.

Ft. Pierce Shore Protection Project

The contract for the 11th renourishment was issued on 7 December 2017. Only the base option of the contract was issued due to funding availability. Notice to Proceed was issued on 18 January 2018 and construction is expected to be completed in May 2018.



Martin County

The contract was awarded on 26 September 2017 to Great Lakes Dredge and Dock. The start of work has been delayed until April 2018 by request from the contractor. The required fill volume has increased to approximately 200,000 cy of volume due to erosion from Hurricane Irma. All dredging for the project must be halted on 30 April 2018 due to the environmental window.

Pinellas County

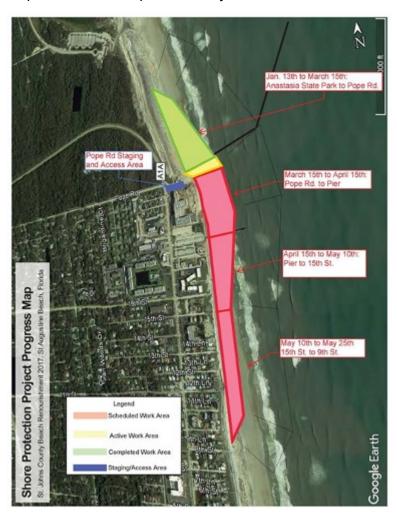
<u>Sand Key:</u> The project was awarded to Norfolk Dredging on 27 September 2017. Notice to Proceed was issued on 11 January 2018 and dredging is anticipated to commence by 15 April 2018. The anticipated project completion date is 7 December 2018.

<u>Long Key:</u> Upham Beach is included as an option in the Sand Key project contract but it has not been exercised.

<u>Treasure Island:</u> The Treasure Island 11th renourishment is being conducted under the combined contract with Sand Key.

St. Johns County - St. Augustine Beach

The beach renourishment is being constructed by the contractor, Marinex. Work on the project is ongoing and is expected to be completed in May 2018.



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FDEP Agency Updates



From the Division of Water Resource Management

Congratulations to Alex Reed!

Deputy Secretary John Truitt announced the appointment of Alex Reed as the director of the Division of Water Resource Management, effective March 30, 2018.

Alex has been with the department since 2009, having most recently served as the deputy director for the Division of Water Resource Management. Alex has played a vital role in the division's success over the last year. Alex managed the Submerged Lands and Environmental Resources Coordination Program and the division's beaches and coastal programs. During Hurricane Irma, Alex led the division's hurricane response and recovery efforts for Florida's beaches, following the most significant coastal impacts in over a decade.

Previously, Alex served as the administrator of the department's Beaches and Mines Funding Assistance Program. In this role, Alex led the grant funding program to assist local governments with the annual beach and inlet management projects and landowners with the restoration of older mined lands. Prior to working at the department, Alex worked in various roles as a geologist and analyst at URS Corp. and several entrepreneurial ventures. Alex earned a bachelor of science in geology from Florida State University.

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Shoreline

A monthly electronic publication of the Florida Shore & Beach Preservation Association.

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CALENDAR OF EVENTS

FSBPA Conferences

September 19-21, 2018

61st Annual Conference

Hyatt Regency Clearwater Beach Resort Clearwater Beach, Florida Call for Abstracts Due June 4th Award Nominations Due July 31st

February 6-8, 2019

National Conference on Beach Preservation Technology St. Augustine Beach Hilton Embassy Suites

How are you paying for your local coastal management project?! PLEASE HELP by <u>filling out this short survey</u> (5 minutes of your time!).

Peter Ravella, PARC, is leading an ASBPA Local Funding Working Group, to help equip local governments to accomplish project funding. There are dozens of funding strategies being implemented around our state, and your input can help other local communities who are trying to devise their own funding strategies. After Peter's committee's findings are presented to the ASBPA membership, we've invited Peter to share them with FSBPA as well – perhaps at a future conference!

OTHER DATES OF INTEREST

April 10-13

Florida Floodplain Managers Association Conference Orlando, FL

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