

news from the Florida Shore and Beach Preservation Association

February 2018



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All you need to know about the Conference

Top 10 Reasons to Attend!

Program

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USACE Jacksonville District Sunny Isles Beach Project Updates





Top Ten reasons to attend the Tech Conference

- 1. Join us for the first ever National Beach Conference in Panama City Beach – @Visit_PCB beaches are spectacular, especially in February.
- 2. Learn from academic, scientific, and coastal design experts about the latest innovations in beach preservation.
- 3. Meet and network with professionals from 15 states representing a variety of coastal related disciplines.
- 4. Start your year off right by earning 18+ Professional Development Hours (CEUs).
- 5. Shells in your sand learn about the proven technology to remove them.
- 6. What about sand? There's an entire session on the ever important issue of regional sand management.
- 7. See the new and emerging applications for using UAV's on your beach projects.
- 8. Catch the latest on hurricane impact assessments, observations and much, much more.
- 9. Hear presentations ranging from coastal resiliency, to environmental coastal resource protection, to shoreline stabilization measures, to case studies on ... oh, there really is something for everyone.
- 10. Meet our Exhibitors! They will be there to offer solutions to the many challenges of beach management and preservation.



Shoreline

31st Annual National Conference on Beach Preservation Technology Conference Program

February 7-9, 2018 Edgewater Beach Resort Panama City Beach, FL

Wednesday, February 7, 2018

OPENING SESSION

Note: Times are listed in Central Standard Time

1:00 p.m. to 7:00 p.m.

1:00 p.m. Welcome from Mayor Mike Thomas, City of Panama City Beach

1:10 p.m.

Welcome to Panama City Beach!: Twenty Years and Still Going – Successful Beach Management of the Panama City Beaches, Florida

Lisa Armbruster, Sustainable Beaches, LLC and Stephen Keehn, P.E., Tara Brenner, P.G., P.E., and Thomas Pierro, P.E., APTIM, Boca Raton, FL

1:40 p.m.

The Little City that Could: How Mexico Beach Dredges Up their Projects Michael Dombrowski, P.E., MRD Associates, Inc., Destin, FL and Kimberly Shoaf, Mexico Beach Community Development Council, Mexico Beach, FL

2:05 p.m. Storm Impact Modeling Analysis for the Restoration of Gulf State Park, Alabama Jordon Cheifet, P.E., João Dobrochinski, and Morjana Signorin, APTIM, Boca Raton, FL

2:30 p.m.

Simulations of Hurricane Matthew Water Levels and Waves; Comparisons to Measurements and Examination of Shifted Tracks Christopher Bender, Ph.D., P.E. and Hunter Bredesen, and Ashley Kauppila, P.E., Taylor Engineering, Inc., Jacksonville, FL and Charlottesville, VA

2:55 p.m. Professional Exchange Break

3:25 p.m.

Caribbean Impacts from the 2017 Hurricane Season Timothy Mason, P.E. and Michael Jenkins, Ph.D., P.E., Applied Technology and Management, Inc., St. Augustine and West Palm Beach, FL

3:50 p.m.

Beach Nourishment on the Florida East Coast

James Houston, Ph.D., U.S. Army Engineer Research and Development Center, Vicksburg, MS

4:15 p.m.

NC Beach and Inlet Management Plan: An Evaluation for a Dedicated Beach Nourishment Fund

Mark Pirrello, P.E. and Johnny Martin, P.E., Moffatt & Nichol, Raleigh, NC, Robert Neal, P.E., Moffatt & Nichol, Wilmington, NC, Nicole Elko, Ph.D., Elko Coastal Consulting, Folly Beach, SC, and Chris Dumas, Ph.D., University of North Carolina at Wilmington, Wilmington, NC



Wednesday, February 7, 2018

OPENING SESSION

1:00 p.m. to 7:00 p.m.

4:40 p.m.

Analysis of Shore Stabilization Alternatives at the Cape Fear River Entrance, N.C. through Application of Delft3D Steven Howard, P.E., Olsen Associates, Inc., Jacksonville, FL

5:05 p.m.

Smith Island, Maryland: Shore Protection Using Headland Control: Design, Construction and Early Performance C. Scott Hardaway, Jr., Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, VA and James Gunn, Coastal Design and Construction, Inc., Gloucester, VA

5:30 p.m. Adjourn

6:00 p.m. Welcome Reception



CONCURRENT SESSIONS

8:00 a.m. to 10:05 a.m.

SESSION A

8:00 a.m.

Tools and Technologies for Regional Sediment Management

Katherine Brutsche, Ph.D. and Linda Lillycrop, Ph.D., U.S. Army Engineer Research and Development Center, Vicksburg, MS and Washington, DC

8:25 a.m.

Regional Sediment Management Case Studies of Successful Implementation Across the Nation Linda Lillycrop, Ph.D. and Katherine Brutsche, Ph.D., U.S. Army Engineer Research and Development Center, Washington, DC and Vicksburg, MS

8:50 a.m.

Regional Sediment Management and Beneficial Use of Dredged Material along the Northern Gulf Coast Elizabeth Godsey, P.E., Nathan Lovelace, P.E., Larry Parson, and Susan Rees, Ph. D., U.S. Army Corps of Engineers, Mobile District, AL

9:15 a.m.

Regional Sediment Strategy for Mobile Bay, Alabama Elizabeth Godsey, P.E., Larry Parson, Nathan Lovelace, P.E., Kevin Reine, and Joseph Gailani, U.S. Army Corps of Engineers, Mobile District, AL

9:40 a.m.

St. Lucie County Intracoastal Waterway Regional Sediment Management William Warren, Taylor Engineering, Inc., Destin, FL

10:05 a.m. Professional Exchange Break

SESSION B

8:00 a.m.

Interpreting and Implementing BOEM's New "Marine Management Rule"

Paul Knorr, Ph.D., Bureau of Ocean Energy Management Headquarters, Department of the Interior, Sterling, VA

8:25 a.m.

A Survey of Techniques to Increase Plant and Animal Diversity in Coastal Dune Restoration

Debbie Miller, Ph.D., Mack Thetford, Ph.D., Gabriel Campbell, and Ashlynn Smith, University of Florida, West Florida Research and Education Center, Milton, FL

8:50 a.m.

Living Shorelines in the Florida Panhandle Duncan Greer, P.E. and Matthew Trammell, P.E., Taylor Engineering, Inc., Destin, FL

9:15 a.m.

The Florida Beaches Habitat Conservation Plan (FBHCP), The Final Steps Before Completion Jennifer McGee, Ph.D., Florida Fish and Wildlife Conservation Commission, Tallahassee, FL

9:40 a.m.

Walton County NRDA Artificial Reef Program

Melinda Gates, Environmental Section, Walton County Public Works Department, Defuniak Springs, FL, Lauren Floyd and Katy Brown, and Beau Suthard, P.G., APTIM, Boca Raton and St. Petersburg, FL

10:05 a.m. Professional Exchange Break

CONCURRENT SESSIONS

10:35 a.m. to 12:15 p.m.

SESSION C

10:35 a.m.

Impact of Hurricane Irma on the Coast of Florida, 2017 Ralph Clark, P.E., Robert Wang, Ph.D., William Weeks, and Peter Bacopoulos, Division of Water Resource Management, Florida Department of Environmental

Protection, Tallahassee, FL

11:00 a.m.

Post-Hurricane Irma Response in Collier County, FL

Gary McAlpin, P.E., Collier County Coastal Zone Management, Naples, FL, and Stephen Keehn, P.E., Tara Brenner, P.G., P.E. and João Dobrochinski, APTIM, Boca Raton, FL

11:25 a.m.

Hurricane Irma Impacts to Southwest Florida (Lee-Charlotte Barriers)

Michael Poff, P.E., Coastal Engineering Consultants, Inc., Naples, FL, Steve Boutelle, Lee County Natural Resources Division, Ft. Myers, FL, Matt Logan, Charlotte County Public Works, Punta Gorda, FL, and Justin McBride, West Coast Inland Navigation District, Venice, FL

11:50 a.m.

Observations of Beach Response to Hurricane Irma along Florida's East and West Coasts

Lindino Benedet, Ph.D. and João Dobrochinski, APTIM, Boca Raton, FL

12:15 p.m. Luncheon

SESSION D

10:35 a.m.

SLOSH Modeling Using Multiple SLR Scenarios in Bridgeport, Connecticut and Hampton Roads, Virginia Zhifei Dong, Ph.D. and Quin Robertson, Ph.D., APTIM, Boca Raton, FL and Y. Jeffrey Yang, Ph.D., P.E., Office of Research and Development, US Environmental Protection Agency, Cincinnati, Ohio

11:00 a.m.

Preparing for Sea-Level Rise: Options for Purposeful Adaptation

John Schedel, Ph.D., P.E., Commander U.S. Navy, Mechanical Engineering Department, U.S. Naval Academy, Annapolis, MD

11:25 a.m.

Impacts of Sea Level Rise at the United States Naval Academy

Miranda Kosmides and Nicholas Padgett, U.S. Navy Students, Ocean Engineering Department, John Schedel, Ph.D., P.E., Commander U.S. Navy, Mechanical Engineering Department, and Angela Schedel, Ph.D., P.E., Commander U.S. Navy, Ocean Engineering Department, U.S. Naval Academy, Annapolis, MD

11:50 a.m.

Hedonic Geospatial Econometric Modeling Applied to Shoreline Protection Charles Bostater, Jr., Ph.D., Florida Institute of Technology, Melbourne, FL

12:15 p.m. Luncheon

CONCURRENT SESSIONS

1:15 p.m. to 3:20 p.m.

SESSION E

1:15 p.m.

Norriego Point Restoration and Recreation Project Pearce Barrett III, P.E., Division of Water Restoration Assistance, Florida Department of Environmental Protection, Tallahassee, FL

1:40 p.m.

Beach Management in Okaloosa and Walton Counties Matthew Trammell, P.E. and Duncan Greer, P.E., Taylor Engineering, Inc., Destin, FL

2:05 p.m.

Western Destin Beach Restoration Project

Matthew Trammell, P.E. and Duncan Greer, P.E., Taylor Engineering, Inc., Destin, FL

2:30 p.m.

Case Study: Rebuilding a Top Community Beach, "Best of the Best" Restored Beach

Tem Fontaine, P.E., Coastal Tech-G.E.C., Inc., Vero Beach, FL

2:55 p.m.

Coordination of Dredged Material Disposal Activities Associated with the Pensacola Harbor Lower Federal Navigation Channel

Larry Parson, Elizabeth Godsey, P.E., and Nathan Lovelace, P.E., U.S. Army Corps of Engineers, Mobile District, AL

3:20 p.m. Professional Exchange Break

SESSION F

1:15 p.m.

Aligning Channel Dredging of Big Carlos Pass to Improve Navigation and Sand Management

Mohamed Dabees, Ph.D., P.E. and Brett Moore, P.E., Humiston & Moore Engineers, Naples, FL and Justin McBride, West Coast Inland Navigation District, Venice, FL

1:40 p.m.

Inlet Stabilization at Stump Pass, Charlotte County, FL Vadim Alymov, Ph.D. and Michael Poff, P.E., Coastal Engineering Consultants, Inc., Naples, FL

2:05 p.m.

Defining Inlet Hazard Areas

Ken Richardson, North Carolina Division of Coastal Management, Morehead City, NC

2:30 p.m.

Delaware Surf Zone Injuries and Associated Environmental Conditions

Katie Hutschenreuter, MRD Associates, Inc., Destin, FL, Jack Puleo, Ph.D., Center for Applied Coastal Research, University of Delaware, Newark, DE, Paul Cowan and Michelle Arford-Granholm, Beebe Healthcare, Lewes, DE, Wendy Carey, Ph.D., Delaware Sea Grant College Program, University of Delaware, Lewes, DE, and Kimberly K. McKenna, P.G., Division of Watershed Stewardship, Delaware Department of Natural Resources and Environmental Control, Dover, DE

2:55 p.m.

Protecting the "Lost Colony" of Roanoke with Innovative Shoreline Stabilization Solutions Matthew Starr, P.G. and Jeffrey Tabar, P.E., Stantec Consulting Services, Naples, FL

3:20 p.m. Professional Exchange Break

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CONCURRENT SESSIONS

3:50 p.m. to 5:30 p.m.

SESSION G

3:50 p.m.

RESTORE-ing the Gulf Coast: Implementing RESTORE Act and NRDA Projects in Coastal Louisiana Whitney Thompson, P.E., APTIM, Boca Raton, FL

4:15 p.m.

Rollover Pass Closure Project, Galveston County, Texas Michael Trudnak, P.E., Taylor Engineering, Inc., Jacksonville, FL

4:40 p.m.

Mississippi Coastal Improvements Program Comprehensive Barrier Island Restoration

Justin McDonald, Elizabeth Godsey, P.E., Joseph Black, Jackie Wittmann, Nathan Lovelace, P.E., Thomas Smith and Susan Rees, Ph.D., U.S. Army Corps of Engineers, Mobile District, AL

5:05 p.m.

Baseline Conditions Assessment for the Mississippi Coastal Improvements Program, Comprehensive Barrier Island Restoration Project in Mississippi, USA Brian Zettle, Elizabeth Godsey, P.E., Justin McDonald, and Susan Rees, Ph.D., U.S. Army Corps of Engineers, Mobile District, AL, Michelle Meyers, U.S. Geological Survey, New Orleans, LA, Soupy Dalyander, Ph.D., U.S. Geological Survey, St. Petersburg, FL, and Nicholas Enwright, U.S. Geological Survey, Lafayette, LA

5:30 p.m. Adjourn

SESSION H

3:50 p.m.

The City of Pompano Beach Fishing Pier Replacement Project Douglas Mann, P.E., APTIM, Boca Raton, FL

4:15 p.m.

Beach Scraping; Benefits of an Interim Shore Protection Measure

Zachary Bedell and Christopher Creed, P.E., Olsen Associates, Inc., Jacksonville, FL and Scott Liggett, P.E., Town of Hilton Head Island, S.C.

4:40 p.m.

Seasonality of Alongshore Sediment Transport Estimated from Surveys of Bathymetric Changing Under a Monsoon Climate

Jeseon Yoo, Ph.D., Korea Institute of Ocean Science and Technology, Korea, Bas Huisman, Wiebe de Boer and Dirk-Jan Walstra, Ph.D., Deltares and Delft University of Technology, Delft, The Netherlands, and In-Ho Kim, Kangwon National University, Korea

5:05 p.m.

Repetitive Nourishments – Observed Performance vs. Predicted Renourishment Intervals

Peter Seidle, P.E., Applied Technology and Management, Inc., West Palm Beach, FL

5:30 p.m. Adjourn

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Friday, February 9

CLOSING GENERAL SESSION

8:00 a.m. to 12:15 p.m.

8:00 a.m.

Our Experiences with UAVs in Coastal Monitoring at Gator Lake Joseph Morrow, MRD Associates, Inc., Destin, FL

8:25 a.m.

Evaluating the Use of UAVs for Rapid Assessment of Storm-Induced Volumetric Change on Singer Island Andy Studt and Chris Carstens, Palm Beach County Department of Environmental Resources Management, West Palm Beach, FL

8:50 a.m.

Practical Applications of Drones (Unmanned Aerial Vehicles – UAVs) for Aerial Mapping of Beach and Nearshore Habitats and Comparison to Full-Scale Manned Aircraft Using GIS-Based Hardbottom Classification Rex "Chip" Baumberger, Brent Gore, Dustin Myers, CSA Ocean Sciences Inc., Stuart, FL

9:15 a.m.

Coastal Field Methods 101: What to do When Data Doesn't Exist Angela Schedel, Ph.D., P.E., Commander U.S. Navy, Ocean Engineering Department, U.S. Naval Academy, Annapolis, MD

9:40 a.m.

Living Beaches: Integrating the Biological Function of Beaches into Beach Management

Melissa Chaplin, U.S. Fish and Wildlife Service, South Carolina Field Office, Charleston, SC, Denise Sanger, Andrew Tweel, Stacie Crowe, and Marty Levisen, South Carolina Department of Natural Resources, Marine Resources Research Institute, Charleston, SC and James Fraser, Daniel Catlin, Daniel Gibson, Kelsi Hunt, Meryl Friedrich, and Chelsea Weithman, Department of Fisheries and Wildlife Sciences, Virginia Tech, Blacksburg, VA

10:05 a.m. Professional Exchange Break

10:35 a.m.

High Fines Content Beach Placement Project Case Studies in Florida and Texas, and an Empirical Formula to Estimate Borrow Sediments Ultimate Beach Capability Coraggio Maglio, P.E., U.S. Army Corps of Engineers, Galveston District, TX

11:00 a.m.

Changes in Beach Profile and Grain Size after Beach Renourishment (Brevard County, Florida) Kevin Bodge, Ph.D., P.E. and Krista Egan, Olsen Associates, Inc., Jacksonville, FL and Michael McGarry, Brevard County Natural Resources Management Department, Viera, FL

11:25 a.m.

Use of a Sand Residence Time Concept for Coastal Management Michael Jenkins, Ph.D., P.E., Applied Technology and Management, Inc., West Palm Beach, FL

11:50 a.m.

Post-Storm Reconstruction Using Resilient Structure in Coastal Areas Vanessa Benzecry and Antonio Nanni, Department of Civil, Architectural and Environmental Engineering, University of Miami, Coral Gables, FL and Steven Nolan, Florida Department of Transportation, Tallahassee, FL

12:15 p.m. Conference Adjourns

Subject to change, any updates as necessary will be made online and presenters notified

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USACE Jacksonville District U. S. Army Corps of Engineers Beach Erosion and Hurricane Protection Project, Miami-Dade County, Florida, Beach Renourishment 2017-2018, Sunny Isles Beach Project



US Army Corps of Engineers®

By Gabriel Todaro, Intern, EN-WC USACE Jacksonville District

Miami-Dade County, commonly referred to as "Dade County", is located along the southeast coast of Florida and contains the city of Miami. Dade County lies between Broward County (north of Dade) and Monroe County (south of Dade). The Dade County shoreline extends along two barrier island segments separated from the mainland by Biscayne Bay. The barrier islands vary in width from about 0.2 to 1.5 miles, with an average width of approximately 0.5 miles. Elevations along the entire coastal region (and much of the mainland) are low, as they are generally less than 10 feet. Elevations along the barrier islands are generally the highest along the Atlantic Ocean shorefront and slope gradually downward toward the bay. All distances referenced within this report are in statute miles.

The authorized project contains two segments, the Sunny Isles Segment and the Main Segment, each with differing periods of Federal participation. The Sunny Isles Segment is comprised of the 2.5 miles of shore extending north from Haulover Beach Park. The segment was initially constructed in 1988, and covers the area between Florida Department of Environmental Protection (FDEP) Range monuments R-7 to R-19.3.

The current project will renourish the critically eroded shoreline at Sunny Isles Beach located between FDEP monuments R-7 to R-17 (Terracina Avenue to Oceania Tower 2 Condos). The project beach has a berm elevation of +6.1 to +6.8 feet NAVD88. The width of the restored beach is 82 feet measured from the erosion control line (ECL). Construction of the project commenced on 26 October 2017 and construction is expected to be completed on 15 February 2018. Figure 1 shows aerial photos from the northern segment of the project and Figure 2 shows the progress map of the project as of 17 January 2018. The contract will place approximately 200,000 cubic yards of sand onto the Sunny Isles Beach.





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Figure 1: Aerial Photos from the Sunny Isles Beach Renourishment Project (Ramage Plaza Marco Polo Beach Resort (left) and Marenas Resort (right)).

Figure 2: Progress Map of the Sunny Isles Beach Renourishment from 17 January 2018.

TRUMP

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CALENDAR OF EVENTS

FSBPA Conferences

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

OTHER DATES OF INTEREST

January 9-March 9, 2018 2018 Legislative Session Tallahassee, FL

February 2-4, 2018 21st Annual Florida Marine Turtle Permit Holder Meeting World Renaissance Renaissance St. Augustine, Florida

March 20-22, 2018 ASBPA Coastal Summit Washington, DC

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