

"Making Tomorrow Better"

JACKSONVILLE JOURNAL

30 Years of Restoration
Kissimmee River

U. S. Army Corps of Engineers
Jacksonville District

COMMANDER'S CORNER

Webster's Dictionary defines investment as an act of devoting time, effort, or energy to a particular undertaking with the expectation of a worthwhile result. The investments made by the Jacksonville District team over the past year have yielded significant outcomes for the people of Florida, Puerto Rico, and the U.S. Virgin Islands.

Congress trusted us to obligate more than \$611 million over the past year. This investment entrusted to us by taxpayers improves public safety, sustains the environment, and provides economic security.

This funding yielded remarkable results, and in the pages that follow, you will read about these fantastic accomplishments. We celebrated the physical completion of the historic Kissimmee River Restoration Project, awarded the first USACE construction project for the Everglades Agricultural Area Reservoir, and made substantial investments in beaches that help reduce the impacts of storms.

In addition, the rehabilitation of Herbert Hoover Dike around Lake Okeechobee is nearing its final stretch with 89 percent of construction contracts complete, and we are on track for completion in December 2022. These highlights are only the tip of the iceberg.

Investments reach far beyond funding; it also extends to our investment in people. Our partnerships with stakeholders are our highest priority. Listening and ensuring their voices are heard as we work through complicated processes is time well invested. I am proud of our team and the time they invest into hearing from the people we serve.

This leads me to this outstanding team I have the privilege of leading. Jacksonville District employees displayed an enormous commitment to the mission, even in the face of difficulty throughout 2021.

They continued to work through a pandemic and in a primarily virtual environment. They rose to the challenge and made outstanding progress over the past year, for which I am incredibly proud. Through adversity, they continue to invest their time, resources, and talents to ensure we advance projects and deliver services in a manner that is transforming the region and the Corps of Engineers.

I am incredibly proud to serve alongside these civil servants as we answer the call to bring engineering solutions to the toughest challenges across Florida, Puerto Rico, the U.S. Virgin Islands, and beyond. It is an investment that is worthwhile.

ESSAYONS!

Col. James L. Booth

Col. James L. Booth took command of the Jacksonville District on Sept 9, 2021.

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VISION

Team of professionals making tomorrow better

MISSION

Deliver value to the nation by anticipating needs and collaboratively engineering solutions that support national security, energize our economy, and increase resiliency.

ON THE COVER

Collage of Kissimmee River. on the far left is an image from the 1940s where the river meandered for 103 miles of pristine habitat. Then, in the mid-60s, to the early 70s when congress asked the U.S. Army Corps of Engineers to cut and dredge the river into a 30-foot deep straightaway called the C-38 canal. The middle image shows the C-38 canal filled. On the far right, we see the river-floodplain ecosystem restored to include almost 12,398 acres of wetlands and 40 miles of the historic river channel.

THE JAX TEAM

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WE KEEP REACHING **MILESTONES**

During a year that
challenged us



Equipment laying out 1,050 feet of stone revetment along the Loíza Shoreline, Puerto Rico. Photo by: Luis Deya

Story by: Luis Deya

Reaching milestones in 2021 was challenging but Jacksonville District, Antilles Office keeps focused on completing projects that are of great importance for the safety and security of Puerto Rico and the U.S. Virgin Islands. Since the COVID-19 Pandemic began in 2019 and up to today, we have endured its obstacles and challenges. Still, the U.S. Army Corps of Engineers, Jacksonville District, Antilles Office has been innovative in planning and finding ways to meet deadlines.

One of the most significant milestones was the substantial construction completion of the Loíza Shoreline Protection CAP 14 Project in June 2021. The project's feasibility study, completed in 2016, recommended a stone revetment of approximately 1,050 feet along the Municipality of Loíza shoreline with the purpose of erosion control and for the protection of public infrastructure and facilities, including a Head Start public school, community center, and segments of a critical public roadway. The Bipartisan Budget Act of 2018 provided \$5M for the design and construction of this project at 100% federal cost; the Puerto Rico Department of Natural and Environmental Resources (DNER) is the non-federal sponsor. In October 2021, a Ribbon Cutting Ceremony was held by Congresswoman Jennifer González. Jacksonville District Commander Col. James Booth was in attendance. The completed project will allow



Aerial view of Rio de la Plata Flood Risk Management project at Dorado Bridge, Dorado Puerto Rico. USACE Photo by: Jacksonville District UAS Team

the Municipality of Loíza to renovate the damaged structures for the use and enjoyment of the community, and the public access road will no longer be threatened.

“It is exciting to see the significant progress made by the project delivery teams on all projects during this year, and its visible impacts on the Puerto Rico mission.” said Sheila Hint, Antilles Section Chief, Water Resources Branch, Programs and Project Management Division, U.S. Army Corps of Engineers, Jacksonville District.

The Rio de la Plata Flood Risk Management project is designed to mitigate flooding from heavy rainfall combined with steep headwater slopes in the towns of Dorado, Toa Baja, and Toa Alta. This project reached three critical milestones during FY21, which paved the way forward on the project. Between October and November 2020 preliminary and intermediate designs were completed on contract 3 and contract 2. In April 2021 a Land’s Acquisition Request was submitted to DNER and in June 2021, pre-final design was completed on Contract 1. Rio de La Plata Flood Control Project consists of six contracts, one of which has been completed, two are under construction, and three have

ongoing design efforts. Project features include 4.8 miles of channel improvements, 6.22 miles of levees, replacement of 2 bridges, relocation of a 72-inch potable water line, and recreation facilities. When completed, the project will provide over \$12 million average annual economic benefits and 100-year storm-event flood protection downstream of PR-Highway 2, including portions of Dorado and Toa Baja.

“As a native to Puerto Rico, it is exciting and an honor to get the opportunity to serve as Project Manager for the Rio de la Plata project that is intended to safeguard life and property in our communities.” said Kiomy Lamb-Mercado, P.E., Project Manager, Water Resources Branch, Programs and Project Management Division, Jacksonville District-Puerto Rico/Antilles Section.

As scheduled, plans and specifications of the intermediate design package for the Rio Grande de Arecibo project were completed in Jul 2021. The completion of the intermediate design package is crucial to determine the real estate requirements to implement the project. The Department of Natural Environmental Resources as the non-federal sponsor, could initiate the real estate acquisition process by completing

this package. This project will provide flood risk reduction for a 100-year flood event for Arecibo and the Los Caños area due to overflows from Rio Grande de Arecibo, Rio Tanama, and Rio Santiago. The remaining project features combine two floodwalls and levees along the Arecibo River; channel improvements, three bridge replacements on the Santiago River; and a wetland mitigation site. When completed, this project will provide flood protection and over \$8 million average annual economic benefits to more than 86,000 Arecibo municipality residents.

”I am very proud of the design team. The magnitude and high velocities of the Rio Grande de Arecibo flow represent many challenges.”

”I am very proud of the design team. The magnitude and high velocities of the Rio Grande de Arecibo flow represent many challenges, but their commitment and dedication kept them focused on achieving the main goal,” said Eng. Brenda E. Calvente, P.E., Senior Project Manager, Jacksonville District. “The supplemental program is a one-time unique opportunity to positively impact the lives of millions of people living in Puerto Rico, improving their quality of life. Puerto Ricans will have peace of mind and will be certain that they are safe and protected in their homes from future flooding events.”

This September another significant milestone was reached on the Rio Puerto Nuevo Flood Risk Management project with the completion of the 2D Walls construction contract. The 2D Walls construction contract represents an invest-

ment of approximately \$21.6 million in Puerto Rico’s infrastructure to alleviate flooding in the Rio Puerto Nuevo drainage basin in San Juan. This construction contract was the first to utilize Supplemental funds from the Bipartisan Budget Act of 2018 Public Law 115-123, in approximately \$5.9 million to aid in the contract award. The U.S. Army Corps of Engineers, working with our

non-federal sponsor DNER, continues to deliver for the citizens of Puerto Rico.

“This is yet another significant step in completing a very challenging civil works project that has been 30 years in the making.” Jose Bilbao, P.E., Senior Project Manager, USACE, Jacksonville District “With the addition of Supplemental funding provided under the Bipartisan Budget Act of 2018, the U.S. Army Corps of Engineers and its partner DNER will be able to continue to award construction contracts to improve the flood control of the communities surrounding Rio Puerto Nuevo.”

September 2021 Lt. Gen. Scott Spellmon, USACE Commanding General signed the Chief’s Report for the San Juan Metro Area Coastal Storm Risk Management (CSRSM) Study. The project objective is to reduce the risks of damages from coastal flooding and wave attacks during hurricanes and storms and increase community resilience from coastal storms and sea-level rise in San Juan Metro Area.

Events that cause coastal flooding from storm surge tide and wave contributions



Lt. Gen. Scott Spellmon, USACE Commanding General signing the Chiefs Report for the San Juan Metro Area Coastal Storm Risk Management (CSRSM) Study. USACE Photo by: Phil Tintner

cause significant damages to infrastructure. This will allow communities to return to their everyday lives sooner and businesses to reopen with less economic impact. The CSRM study covered an area with approximately 20,000 assets, with a combined estimated value of \$3.4 billion. Signing the report is a step forward and means that the recommended project could receive Congressional authorization in the future. The CSRM study was granted under Section 204 of the Flood Control Act of 1970, Public Law 91-611. The study funds were appropriated by the Bipartisan Budget Act of 2018 Public Law 115-123, or Supplemental Program, at a federal cost of \$3,000,000. The Puerto Rico Department of Natural Resources (DNER) is the non-federal

sponsor for the project.

JACKSONVILLE DISTRICT, ANTILLES OFFICE
 U.S. Army Corps of Engineers (USACE) Jacksonville District, Antilles Office has been actively working alongside stakeholders, local agencies and government on Coastal Risk Management Strategies to support and improve resilient communities.

USACE oversees water resources development, military design, construction projects, Formally Used Defense Sites program and emergency management in support of local governments on Puerto Rico and U.S Virgin Islands.

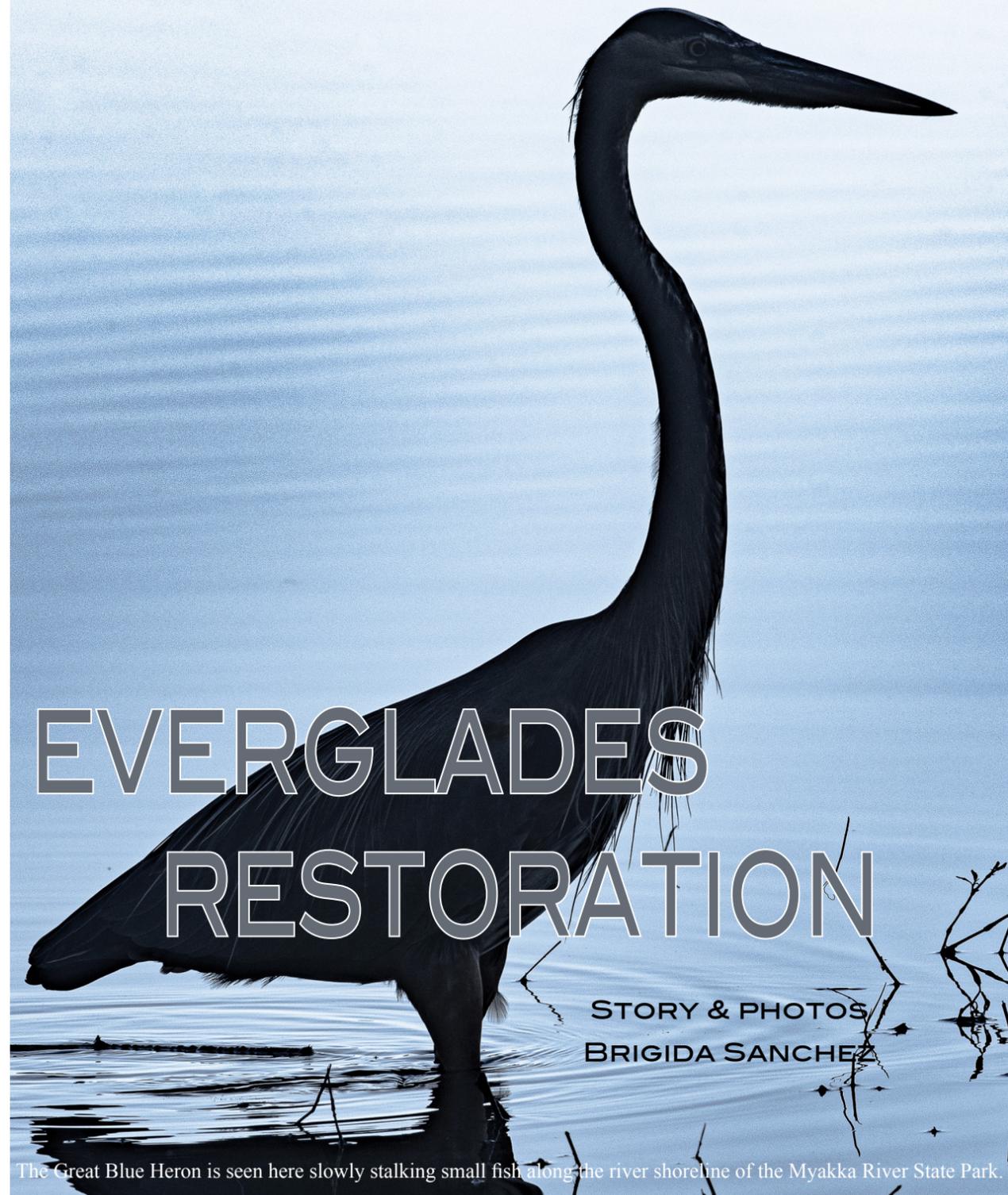


Aerial view of future alignment of the Rio Grande de Arecibo flood risk reduction project that separates the Municipality of Arecibo from the main river channel and reduce the risk of flooding to the community. Photo by: Ariel Irrizary Marrero

ORCHESTRATING

EVERGLADES RESTORATION

STORY & PHOTOS
 BRIGIDA SANCHEZ



The Great Blue Heron is seen here slowly stalking small fish along the river shoreline of the Myakka River State Park.

Just close your eyes for a moment and call up your old friend. Yes, that old friend, Ms. Imagination, I know it's been a while since you've spoken. But ask her. Ask her to take you to the largest subtropical wilderness in the United States, where you can sit for a while in a vast, untamed landscape.

Look up, and you will see cumulus clouds scurrying across a big blue skyway. Listen, and you will hear a full orchestra of rustling cypress, a choir of birds, stridulating bugs, croaking frogs, and bellowing gators playing in harmony as blades of grass and saw palmetto swing and sway in the sunlight.

Then as a bead of sweat slowly slides down your back and a squadron of mosquitos dives down in an audacious plan of attack; you quickly open your eyes.

Welcome back from your introductory trip to the Everglades. Not even a Nobel prize-winning scientist could begin to tell you about the extraordinary complexities that the 1.5 million acres of saw grass marshes, mangrove forests, and hardwood hammocks dominated by wetlands present with just spending a day in this fantastic place.

The U.S. Army Corps of Engineers (USACE) is one of 10 federal and state agencies, alongside the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida, vested in the Comprehensive Everglades Restoration Plan (CERP). The plan is to “restore, preserve and protect the south Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection.”

The question is, how does this fellowship track changes in the system that is the Everglades. The team must consider many factors such as challenges of climate change, urban development, the 8 million and growing population that relies on it for potable water, and the flora and fauna that the Everglades sustains.

What does that mean, you ask? The answer is Restoration Coordination and Verification



(RECOVER), a multi-agency team of scientists, modelers, planners, and resource specialists who organize and apply scientific and technical information in ways that are essential in supporting the objectives of the CERP.

First, it implies that RECOVER collects several types of data over a period of time, and then the team analyzes this data to evaluate CERP progress.

Gina Paduano Ralph, a USACE lead scientist, says, “Preliminary investigations began in the early 2000s, and the majority of the current monitoring programs began around 2005. In addition, some monitoring components were built on existing efforts and, therefore, have an even

Morning view off the shore of the Myakka River, the state park is one of Florida's largest and most diverse natural areas. It is one of Florida's oldest parks and was developed by the Civilian Conservation Corps in 1934.

longer and more valuable data sets.”

Ralph explains, “There is a critical link between the acquisition of monitoring and research data to the system-wide assessment of status and trends of ecological indicators, as well as to the decision-makers through the Adaptive Management program. These factors are essential to reducing the uncertainty in decisions and to evaluate the CERP's success. This type of monitoring and feedback loop ensures that science guides CERP decision making, increasing overall success of providing Everglades restoration initiatives.”

The question is can we restore the remaining Everglades to approach its original state? Humans have played a role in the Everglades' current state, and now with CERP in its restoration.

Through CERP, we restore by removing barriers to sheet flow, creating and cleansing water, managing seepage, and adjusting operations. It is through these components that we manage the water that is crucial to reestablishing the Everglades.

RECOVER scientists are on the ground, trekking through mud, gliding across wetlands in



Myakka River State Park is famous for its diverse wildlife. In the winter, ducks and shorebirds feed in the shallows as bald eagles and ospreys fish from above. Canopies line the river, wetlands, prairies, hammocks and pinelands. The state park, which is not a part of the U.S. Army Corps of Engineers (USACE) South Florida Ecosystem Program, provides vital habitat. It is representative of the work being done by federal and state agencies to restore and manage the South Florida ecosystem for wildlife conservation and safe habitat. Nov. 25, 2021, Sarasota, Florida. Photo: 1. Great blue heron 2. Egret 3. A lush canopy of oak and palm trees

airboats, and kayaking through what is the Everglades to observe and collect data. The team has developed and implemented a Monitoring and Assessment Plan (MAP).

Jenna May, a USACE biologist, says, “The RECOVER MAP is designed to test ideas about what can be done to restore the ecosystem. And determine whether changes seen in the ecosystem result from restoration activities or other factors, such as climate change and rising sea level.

Some of the plant and animal species, or ecological indicators, RECOVER is monitoring as part of the MAP include submerged aquatic vegetation, eastern oyster, crocodiles, juvenile spotted seatrout, periphyton, tree islands, and wading birds,” explains May.

“We report on these indicators, and others, in our RECOVER System Status Report, which is prepared every five years.”

May notes that the first-generation Picayune Strand Restoration Project (PSRP) is a success story. The PSRP intends to redistribute the freshwater flow, creating more uniform salinity patterns within the Ten Thousand Islands Estuary.

Regarding CERP, ecological benefits that have been documented are manatees taking advantage of the Manatee Mitigation Feature, a warm-water refuge. May also adds that there has been a reemergence of foraging wading birds and native flora that have been absent in the area for decades.

Along with successes, there are environmental conditions that are a challenge in ecosystem restoration. For example, May cites that scientists realize that the pre-drained Everglades system was more saturated than previously thought.

To achieve the team’s ecological outcomes, more water needs to flow through the system to have more birds, more bugs, more frogs, more gators, and of course, more native plants. Imagine that orchestra of sound, in the beginning, can you even fathom what it sounds like now?

May shares “that existing constraints such as

seepage management, water storage, and water quantity will need to be addressed before enough additional water is available to see improvements in the southern portions of the system. Additionally, some project teams are strategizing how to promote system-wide resilience so that the goals and objectives of the CERP can still be met in light of future changes, such as climate change and sea-level rise.”

CERP has seen success through challenges because of RECOVER’s ability to capture a dynamic picture from the micro to the macro level.

May emphasizes that the team continues to provide rich data resources and powerful predictive tools to CERP projects for almost two decades. “I think we are fortunate to have developed some robust long-term datasets that projects can use and feel confident in.”

Is it possible to know how many birds have nested? Can planners figure out if there are enough oysters and native aquatic plants to help filter the water coming down from the north? Can we have CERP without RECOVER?

Ralph concludes, “RECOVER is a requirement of the Programmatic Regulations. However, the continued decline in RECOVER resources to include monitoring data severely limits RECOVER’s ability to conduct scientific investigations; to promote the best possible outcomes with CERP.”

The dictionary defines syncopation as a musical term meaning a variety of rhythms played together to make a piece of music. So, birds singing, bugs friskily rubbing their wings, leathery lizards huskily groaning, and of course, scientists with their spreadsheets and electronic dashboards plugging in numbers are all essential to orchestrating the restoration of the largest subtropical wilderness in the United States, the Everglades.

Ceremony Kicks Off Water Restoration Projects

Story by Mark Rankin

The U.S. Army Corps of Engineers (USACE) Jacksonville District hosted a groundbreaking ceremony October 2021 for the Central Everglades Planning Project, (CEPP) a project designed to improve water flows south to Everglades National Park.

Florida Gov. Ron DeSantis attended the ceremony and commended USACE, its partners and reassured the states commitment to excellence and providing support to the project.

“Projects like this along with many other projects surrounding Lake Okeechobee means millions of Floridians will see a big difference in water quality and serve future generations very well,” said DeSantis. “This is a great project and thank everyone for their efforts on this project.”

U.S. Army Corps of Engineers South Atlantic Division Commander, Brig. Gen. Jason Kelly, emphasized the importance of the partnership USACE shares with other agencies and said this is a major step taken to construct an infrastructure that will improve the water quality, quantity, timing, distribution of water flows to the everglades.

“We saw today a great example of partnership,”

said Kelly. “From federal and state leaders, led by Gov. Desantis, Congressional members and local agencies.”

U.S. Army Corps of Engineers Jacksonville District Commander Col. Andrew Kelly talked how CEPP is a critical component of the comprehensive Everglades Restoration path. He explained through a system of culverts, or tunnels, water will flow south into the Everglades, under Tamiami Trail bridges, and into Florida Bay, serving as one piece of the restoration puzzle as future projects come online.

“We are here as a testament of the importance of the project but also more importantly to the teamwork that is required to get us here,” said Kelly.

USACE officials said this is the latest step is a huge undertaking to expand the storage and treatment of water south of Lake Okeechobee and remove canals and levees within the Everglades.

USACE awarded the Central Everglades Planning Project South Contract 1 for \$40,502,895 to Kiewit Infrastructure South Co. from Omaha, Nebraska in September. The contract calls for the construction of culverts and a gap in the L-67A levee and backfilling an agricultural ditch just north of Tamiami Trail. Work on this

project is expected to be complete by the end of 2024.

The contract is the outcome of years of interagency planning and coordination with partners at the South Florida Water Management District, stakeholders, and members of the public who have been collaborating to improve the quantity, quality, timing and distribution of water in south Florida.

“These partnerships are key components of these projects,” said Ryan Fisher, Principal Deputy Assistant Secretary of the Army for Civil Works. This ceremony signifies the hard work and interagency collaboration that was necessary to award this first contract.”

He said ecosystem restoration is one of the top missions of the Civil Works program and improving the distribution and flow of water to southern Florida is a priority for our office and this administration, with the assistance of the water subcabinet.

CEPP is designed to take water that is current sent to tide through the estuaries and redirect it south to the Central Everglades, Everglades National Park and Florida Bay.

“Healthy coastal and marine ecosystems directly contribute to the strength of America’s blue economy, so restoration projects like these are key to a thriving local community and overall nation,” said Nicole LeBoeuf, acting director of the National Oceanic and Atmospheric Administration’s (NOAA) National Ocean Service. “NOAA’s partnership with the U.S. Army Corps

of Engineers on Everglades restoration results in better management of water flow essential to protecting downstream resources such as coral reefs and seagrass beds.”

CEPP south is specifically designed to remove barrier to water flow in the southern portion of the project footprint, setting conditions to flow more water south.

Secretary of the Florida Department of Environmental Protection, Noah Valenstein, said they’re “doing all of this work to both stop discharges going out to the coast, but those discharges need to get down south where the park needs it or Florida bay needs it.”

“The Florida Everglades are a national treasure, and we are excited to witness the collaborative progress that is being achieved in

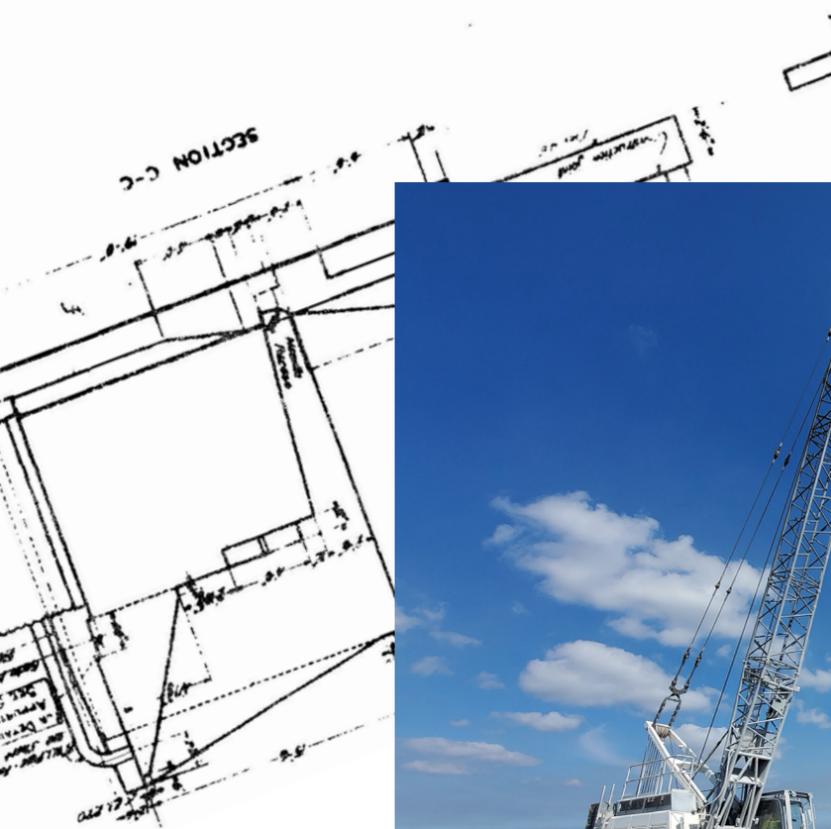
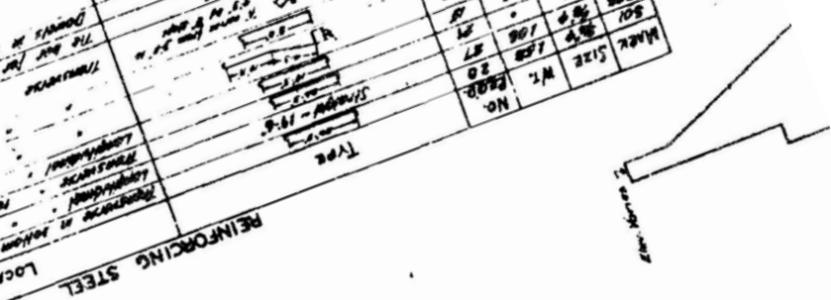
South Florida,” said U.S. Environmental Protection Agency (EPA) Assistant Administrator for Water David Ross. “EPA will continue to work with the Water Subcabinet to support our local, state, tribal, and federal partners in restoring this amazing ecosystem while enjoying the many economic, recreational, cultural and environmental benefits it supports.”

The ceremony is the first of many, as current schedules call for awarding new contracts every year through 2025 to complete the overall CEPP project.

“Healthy coastal and marine ecosystems directly contribute to the strength of America’s blue economy, so restoration projects like these are key to a thriving local community and overall nation.”

Federal and state partners shovel ceremonial sand to kick-off the official start of the Jacksonville District’s Central Everglades Planning Project at a groundbreaking ceremony in Miami.

(Photo by Gabe Margasak of South Florida Water Management District)



THE PRETTIEST WALL NEVER SEEN

Story and Photos By Jim Yocum

The invisible \$2 billion dam safety project improving the safety of those living near Lake Okeechobee.

It's the prettiest wall you will never see.

That's because the beauty of the cutoff wall shoring up the Herbert Hoover Dike (HHD) around Lake Okeechobee isn't in its physical appearance. The beauty lies instead in how the wall hidden inside the 143-mile earthen dam can improve the lives of those living in south Florida.

The original dike began its life in 1915 when residents made a pile along the shore of the lake consisting of dredged gravel, rock, limestone, sand, and shells.

The materials and methods had nothing in common with how a modern dam would be constructed. The dike allowed too much water to move through it, washing away material as it traveled through the earthen dam.

"All earthen dams have water that flows through and underneath them – that's what we call seepage," said Tim Willadsen, project manager for the HHD rehabilitation project in the Programs and Project Management Division of the U.S. Army Corps of Engineers, Jacksonville District.

"With HHD, especially in the south, that water has specific paths that it flows through that potentially can pick up material and carry it," Willadsen said. "Once you carry material out of the internal workings of a dam or its foundation, that's when you are subject to collapse and catastrophic failure."

Col. Andrew Kelly (center), commander of the Jacksonville District, and Eva Velez (right), Jacksonville District Ecosystem Branch Strategic Program Manager, meets with Dr. Paul Gray, the Everglades Science Coordinator for Audubon Florida, to discuss the Lake Okeechobee System Operating Manual preferred alternative selection July 28 in Okeechobee, Fla. The LOSOM project is taking advantage of the restored Herbert Hoover Dike to provide more flexibility in how water is managed in the lake.

That type of failure led to the loss of thousands of lives during hurricanes in 1926 and 1928 when water overtopped the dam and flooded local communities. USACE was tasked with constructing a more robust levee around portions of the lake. A 1947 hurricane led to Congressional authorization to build what was eventually the

Herbert Hoover Dike visitors see today.

Completed in the 1960s, the earthen dam still faced problems with seepage.

To ensure water doesn't take portions of the dike material with it, a wall is being built below grade to force that water to go deeper into

the ground and slow it down enough that it can't carry parts of the dike with it as it flows. That's where the invisible cutoff wall makes its appearance, or rather doesn't make an appearance as it hides in plain sight.

Since 2007, locals have watched as massive cranes, and cutter heads have slowly crept along the top of the dike, but few have actually seen the results up close because the wall is constructed inside the dike.

Reaching 60 feet deep in some locations, the wall is unseen by the thousands of people who walk or bike on the newly replaced Lake Okeechobee scenic trail that circles the lake atop the dike. Most have little idea that they are right on top of a \$2 billion dam safety project that makes a living around the lake safer.





1



2

Now, with the cutoff wall nearing its completion date of 2022, Floridians are beginning to find out what benefits that infrastructure investment is buying.

“The risk to the dike during high lake stages was one reason we changed the operating schedule for the lake in 2008,” said Tim Gysan, project manager for the Lake Okeechobee System Operating Manual project.(LOSOM) “With dam safety addressed by the completion of the dike rehabilitation work, we have more flexibility in how we manage the lake, which can have huge benefits for stakeholders who live in South Florida.”

The HHD rehabilitation seems to be proving the adage that beauty is in the eye of the beholder. The LOSOM team is rewriting the manual for managing Lake Okeechobee with the enhanced flexibility a rehabilitated HHD provides. The benefits from that revised manual will appear differently to stakeholders in different areas.

Those living in the shadow of HHD will enjoy less risk of disasters like the 1926 and 1928 hurricanes because the dike is stronger and more resilient. Every alternative reviewed so far scores well in performance measures related to dam safety.

Those who rely on the water in the lake – city utilities and agriculture, Everglades National Park, and Florida Bay – will see more water available in every alternative reviewed to date.

With the preliminary preferred alternative selected, the Caloosahatchee and St. Lucie Estuary communities will benefit from reducing the highest volume flows under the current sched-

ule, and the Caloosahatchee will see an increase in the optimal flows needed for salinity control during the dry season.

“We aren’t anywhere near to being done, but as we move into optimization, we believe we have a really good starting point from which to work,” Gysan said. “We will continue to focus on improving the preferred alternative through the fall of 2021 and be ready to go through the formal NEPA process and complete the project in time to use the new operations manual when the HHD rehab work is finished in 2022.”

Gysan cautioned that completing the HHD rehab and writing a new manual isn’t the final solution to the water management concerns that stakeholders face.

“The flexibility of a rehabilitated dike is great, and there are definite benefits to be enjoyed with a new operating manual, but this isn’t a silver bullet for all the region’s concerns about lake management,” he said.

“We still have limitations that can only be addressed by completing new infrastructure, including components of the Comprehensive Everglades Restoration Plan. But we do believe that when the HHD is done in 2022, this new operating manual is going to provide benefits to everyone and perform much better than our current regulation schedule can.”

To learn about LOSOM, visit the Jacksonville District website at <https://www.saj.usace.army.mil/LOSOM/>.

1. Tim Gysan (right), the project manager for the Jacksonville District’s Lake Okeechobee System Operating Manual project, meets with Kristin Delgado on the WINK News television set in Fort Myers, Fla., to discuss the LOSOM project on July 27. The LOSOM project is taking advantage of the restored Herbert Hoover Dike to provide more flexibility in how water is managed in the lake.

2. Col. Andrew Kelly (center), commander of the Jacksonville District, takes part in a Facebook Live interview with the leadership team from the Captains For Clean Water nonprofit to discuss the Lake Okeechobee System Operating Manual. Captains for Clean Water co-founder and executive director Captain Daniel Andrews (right) spent about an hour talking about how LOSOM has the potential to help the people living along the Caloosahatchee River Estuary. The LOSOM project is taking advantage of the restored Herbert Hoover Dike to provide more flexibility in how water is managed in the lake.

MEDIA DAY AT LAKE OKEECHOBEE

Story and photos by Maya Jordan

The U.S. Army Corps of Engineers (USACE) Jacksonville District hosted its first-ever media day in April 2021 by inviting media from across the region to learn about projects, mission, and completion dates for south Florida projects, including Herbert Hoover's rehabilitation Dike and Lake Okeechobee.

The four-hour event was planned in part by the district's corporate communications team and attracted both print and broadcast media.

Media days serve as an opportunity to open lines of communication for all stakeholders and inform on the latest project updates and how projects could impact communities.

USACE Jacksonville commander Col. Andrew Kelly kicked off the event with opening remarks.

"The goal of today is to provide a broad scope informational of all things related to the dike, the lake, onto how we move water, what things we are thinking about, and projects coming up," said Kelly.

Attendees included about 11 reporters from seven regional media outlets within the state arriving at John Stretch Memorial Park at 9:00 a.m. to take part.

"I appreciate events like this because it gives us access to stuff we would never get to see otherwise, said Michael Raimondi of Fort Myers affiliate NBC 2.

The humid and sticky day began under a wooden picnic pavilion in the park, with a safety briefing and media representatives traded in their steno pads and pens for bright yellow and orange safety vests, safety goggles, and white hard helmets before a 5-mile tour of Herbert Hoover Dike.

Due to covid-19 restrictions, in separate vehicles, the media trailed up the rocky road at 10 miles per hour for a tour of real-time maintenance construction work on Herbert Hoover Dike, along Lake Okeechobee.

Along the tour, media were able to see up close miles and miles of cut-off wall, heavy equipment cranes, several types of cement used for transporting and moving sediment, which fill

U.S. Army Corps of Engineers Jacksonville Project Manager, Ingrid Bon explains construction procedures with media at Lake Okeechobee during a media day April 14, 2021. Kelly and a team of subject matter experts explained construction, recent water discharges and current lake levels to local media.

about 100 feet of material a day.

Next, media members received a one-on-one session with contractors and USACE engineers while on the dike.

“This is a public safety project. Back when we had Hurricane Katrina, USACE looked at its overall portfolio of dams. We have more than 800 dams in the nation. We classified the dams by the level of work they needed to reduce the risk of the failure, and the dike was at the top of the list,” said Ingrid Bon, USACE project manager.

Herbert Hoover Dike is a 1.8 billion dollar project that started in 2007, consisting of a 143-mile earthen dam that protects nearby communities Pahokee, Okeechobee, and Belle Glade from flood-risk.

Rehabilitation on the dike is scheduled for completion December 2022.

Then, members of the media gathered at the picnic tables at the south Florida office.

Reporters were supplied information materials on projects that detailed Lake Okeechobee water management, operating manuals, Everglades Agriculture Area (EAA), Stormwater Treatment Areas (STAs), ecology of the lake, flood risk management and ecosystem restoration.

Col. Kelly gave remarks before the start of the expert-led discussion.

“Our construction folks and the contractor folks are out there working hard every day. And that directly relates to the safety of those individuals living in or around Lake Okeechobee. It also means we can do things like adjusting our water management, and we can do that because the liquid heart of Florida, Lake Okeechobee, has a lot of greatness,” said Kelly.

Media participated in a general overview session following a Q&A session from USACE experts, including about eight different professionals such as biologists, dam safety managers, and engineers.

Lake Okeechobee is comprised of a chain of lakes: Lake Tohopekaliga, Lake Istopoga, East Lake Tohopekaliga, and Lake Kissimmee.

The lake is managed in partnership between the South Florida Water Management District and USACE.

“About 732 billion gallons of water enter the lake from the Kissimmee River on average every year, which is equivalent to about 5 feet every single year, said Savannah Lacy, a hydraulic engineer.

Col. Kelly (far left) and reporters from Treasure Coast Newspapers gather to learn more from the contractor about the materials used on the earthen dam.



COMPLETION OF CONSTRUCTION

The Kissimmee River Restoration Project

Written by: Erica Skolte

More than 150 partners and stakeholders joined the U.S. Army Corps of Engineers Jacksonville District to celebrate the completion of construction for the Kissimmee River Restoration Project at the Riverwoods Field Laboratory in Lorida, Florida on July 29, 2021.

Our partners in restoration, the South Florida Water Management District, and representatives from the Department of the Interior, and other local, state, and federal agencies, as well as elected officials and stakeholders -- some of whom have been involved in the project for since the early 1970s -- came together for a Ribbon Cutting Ceremony.

Jacksonville District Commander Col. Andrew Kelly kicked off the event by holding up a ceremonial shovel used during the groundbreaking ceremony in 1994.

“Today, we celebrate the completion of the

construction phase with many of the people who have worked hard to maintain the momentum on this project for more than 30 years,” said Col. Andrew Kelly, Jacksonville District Commander.

“The Kissimmee River Restoration Project was the first successful large-scale active riverine ecosystem restoration project in the country and even in the world,” said Kelly. “It was the model for science-based ecosystem restoration worldwide and proof that ecosystem restoration works. It set the foundation for the Comprehensive Everglades Restoration Plan.”

Mr. Jaimie Pinkham, acting assistant secretary of the Army for Civil Works and a citizen of the Nez Perce Tribe, opened his remarks in his language.

He desired to recognize the original stewards and inhabitants of this beautiful land that they

call home - the Seminole Tribe of Florida and the Miccosukee Tribe of Indians of Florida.

“We are reminded of what we always knew – that Florida’s delicate ecosystem is truly unique and requires special care, and as stewards of this land, we share responsibility to ensure its durability it’s another lesson about the importance about taking the cue from the natural world,” said Pinkham.

“I believe that this river has a strong memory, and it’s going to adapt to its original path, and it’s original purpose. And so, I’m proud of the lessons that we have all learned, and so we are celebrating lessons learned. And you have created a template for others to follow.”

“... I want to thank our partner agencies, and I also want to thank the people who have long lived along this river, tribal and non-, who

understand the sacrifices it takes to complete a project such as this, because this is their home and these are the lands that they love.”

“...While we celebrate, we are also reminded of the tremendous amount of work left to be done.

President Biden has prioritized environmental restoration in the Everglades, including the largest budget request for the Comprehensive Everglades Restoration Plan since its inception. This administration and my office pledge to continue our work with our Congressional allies to provide the

necessary resources to fulfill our commitment here,” said Pinkham.

The Kissimmee River once meandered for 103 miles through Central Florida. Its floodplain, reaching up to two miles wide, was inundated by heavy seasonal rains for long periods. Wet-

“The Kissimmee River once meandered for 103 miles through Central Florida. Its floodplain, reaching up to two miles wide, was inundated by heavy seasonal rains for long periods. Wetland plants, wading birds, and fish thrived there.”



land plants, wading birds, and fish thrived there.

Prolonged flooding caused severe impacts on humans, so Florida officials asked Congress for assistance. Congress tasked the U.S. Army Corps of Engineers (USACE), and between 1962 and 1971, USACE cut and dredged the Kissimmee River into a 300-foot wide, 30-foot-deep straightaway called the C-38 canal. The project achieved flood reduction benefits, but it also harmed the river-floodplain ecosystem.

Congress authorized the Kissimmee River, Florida project in the Water Resources Development Act (WRDA) of 1992. A groundbreaking ceremony was held at Riverwoods in 1994, and construction began in 1999 and was completed in 2021.

The Kissimmee River Restoration Project back-filled 22 miles of the C- 38 Canal and “put the wiggle back” into the historic meandering river. It restored more than 40 square miles of the river floodplain ecosystem, 20,000 acres of wetlands, and 44 miles of the historic river channel.

Restoration efforts have resulted in environmental improvements that have exceeded expectations during many years, including increased dissolved oxygen levels, recovery of wetlands, and increased populations of waterfowl, wading birds, bass, and other sunfishes.

Now that construction is complete, the Headwaters Regulation Schedule can be implemented, and ecological monitoring will continue for an additional five years.

Many USACE project managers and team members have been involved in various phases of the Kissimmee River Restoration Project over



Partners celebrated the completion of construction of the Kissimmee River Restoration Project at a Ribbon Cutting Ceremony at the Riverwoods Field Laboratory in Lorida, Florida on July 29, 2021. Photo by: South Florida Water Management District

the past several decades, even before the project was authorized in the Water Resources Development Act (WRDA) of 1992.

Senior Project Manager Tim Gysan was the final project manager to guide the project through the completion of construction in the summer of 2021 while simultaneously leading the effort to take tremendous amounts of public and stakeholder input on the Lake Okeechobee System Operating Manual (LOSOM).

“The Kissimmee River Restoration ribbon cutting celebrates the completion of the physical restoration of the beautiful meandering river and the vast flood plain that surrounds it. The event is the culmination of work started in the mid-1970s and represents the amazing restoration we can achieve through the dedication and cooperation of hundreds of individuals and agencies at all levels of government. Being a part of the team that has delivered this incredible world-class restoration effort to the people in Florida is the highlight of my career,” said Gysan.

Left: An image of the Kissimmee River Basin in the 1940s where the river meandered for 103 miles, and during the rainy season, the river would flood and swell over the land, causing it to overflow.



30 Years of Construction
and a Future of Restoration

A Simple Device

Manages the Eco-scape

STORY & PHOTOS:
BRIGIDA SANCHEZ

I stood watch as airboat propellers buzz and spin like a half-dozen whirligigs in the morning light, skipping through the 734 square miles that make up Lake Okeechobee. All religiously searching for expanding mats of invasive aquatic plants.

Many of these whirling watercraft operators are piloting a new device that promises efficiency, efficacy, and most importantly accountability. U.S. Army Corps of Engineers (USACE), biologist Jessica Fair and Keith Mangus, project manager at Applied Aquatic Management, took me out with them on the lake to explain how this small, inconspicuous device will revolutionize the management of invasive plants.

The U.S. Congress has often left the management of invasive aquatic plants to government agencies and their contractors through its enacted “The Rivers and Harbors Act” of July 3, 1958, Public Law 85-500, Section 104. Since the 1800s, the USACE and their partners have taken on the daunting task of maintaining our Florida waterways (and minimizing) the impacts of invasive aquatic plant species. Invasive species cause economic losses of more than \$138 billion in the U.S. annually.

Invasive aquatic plant species can clog up waterways, which may slow down or stop the transportation of recreational vehicles and commerce. Large mats of water hyacinth can take out a bridge or lock gate and outcompete native plants.

In order to stop the destruction of infrastructure, USACE and its partners are using three methods of management: biological, mechanical, and chemical. Each process varies in its effectiveness depending on the species of aquatic

Non-native and the invasive water hyacinth outcompetes native aquatic plants on Lake Okeechobee, FL. The water hyacinth is an aquatic invasive species that was introduced to the United States from South America over 100 years ago at the World's Fair. It is a major detriment to flood risk management infrastructure.

plant being treated – leaving the team to rely heavily on data to determine the best method in invasive aquatic plant reduction.

For years, our public has called for more transparency on the process and efficacy of invasive plant management. The urgent appeal has increased with the awareness of how precious our water resources are and the fragility of the ecosystems that depends on them.

Florida Fish and Wildlife (FWC), is an active partner in the management of invasive species.

Mangus said, “FWC took a pause from managing invasive plants to ask for feedback from the public. The response was: no one is overseeing the contractors, and they are out there spraying everything.” This was just one of the many reasons agencies and contractors alike saw the opportunity and decided to revisit finding a solution to meet the public’s request.

FWC engaged its partners as they worked to find a way to provide more oversight.

It was biologist, Andrew Dew from FWC that had the insight and ingenuity to modify and create a program that does more than just giving oversight.

Dew and his team had been looking at new technologies to implement, that were adaptable for the methods used by state and federal agencies to manage invasive plants.

Dew explains how he came up with the idea. “We finished a project where we were using some GPS units, and we noticed that there was a signal and there were inputs on the wire. I



Applied Aquatics, licensed applicator Jeff Smith points to the Spray Tracking Device that was outfitted to some of the airboats piloting a program for Florida Fish and Wildlife, the U.S. Army Corps of Engineers, and the Florida Water Management District. Biologist Alex Dew devised the system to provide oversight and collect data.

started testing things out, and I figured out that I could rig up a switch valve to the herbicide tank and then use that to pair it with the GPS”.

Once FWC was able to install the system, they realized that they could also monitor, mechanical management systems. Dew noted that the GPS unit had already been developed just for a different purpose. “I just repurposed it and adapted it to use with our current technology.”

With the device and the platform still in its early stages, FWC invited partners like USACE and local contractors to demonstrate the tool and invite them to be a part of the pilot program.

Fair said, “USACE wants to become more transparent in our spray programs. We want to work together to improve oversight and to be able to compile more accurate surveys of invasive aquatic plants; this program can do that and more.”

In an airboat with Fair and Mangus, using the FWC’s Spray Tracker platform on their cell phone they quickly located the contractors’ licensed applicators piloting the device.

Upon reaching one of the applicators, he shows us an inconspicuous brass valve and a black box fixed to the back of the pilot’s seat.

Mangus proceeds to explain the process. “The Spray Tracker is an internet-based platform. It is a simple GPS tracker unit that has inputs and a Solenoid valve that opens and closes as the applicator is applying gun pressure. As this is happening, the platform records two separate tracks, one track that shows the navigational path of the airboat in one color and a track that shows the spray path in another. That spray track indicates where we have actually treated the invasive aquatic plants.”

Mangus further explains that this is an essen-

tial tool for the industry. This GPS technology makes sure that the licensed applicators are working in the designated areas and are being efficient. The platform also shows parameters that need to be avoided, such as “snail kite nesting buffer zones” and water intakes.

Fair and Mangus then take off to another location on the Lake. When we arrive, there amongst the mats of water hyacinths were small remnants of fragrant white lilies that were trying to grab the last bit of sunlight before succumbing to the water hyacinths aggressive nature.

“Water Hyacinths are not native to our area. It outcompetes our native vegetation. A certain area that may have been filled with lilies or an ecologically diverse patch of native aquatic plants, will be taken over in weeks or even days by the water hyacinths. They ruin the habitats, promotes mosquito growth and impacts both dissolved oxygen and turbidity,” says Fair.

They explain that the area we were floating on had recently been treated for invasive plants. Mangus and Fair can view the tracks from their device. Since the waterlily is rooted in the soil, the lilies there will quickly produce new flowers and pads after the water hyacinth dies out, taking this area back from the invasives. The program helps them know the exact location in real-time that an applicator applies the designat-

ed herbicide.

“For a biologist going out surveying, sometimes, the effect of the herbicide takes days and even weeks for us to see,” says Fair. “Before this technology, when biologists went out to survey, collect data, and verify that the applications were working, we had a general idea of the treated areas. But now, with this program, we can pull it right up on the platform and see if the area was treated. With that information we can compile our survey data and direct our contractors better. It helps us to be more effective, save time and money.”

What started out as a Sirens call to find a better way of conserving our environment and holding state and federal agencies accountable for their invasive aquatic plant management was just a seed to find an innovative solution.

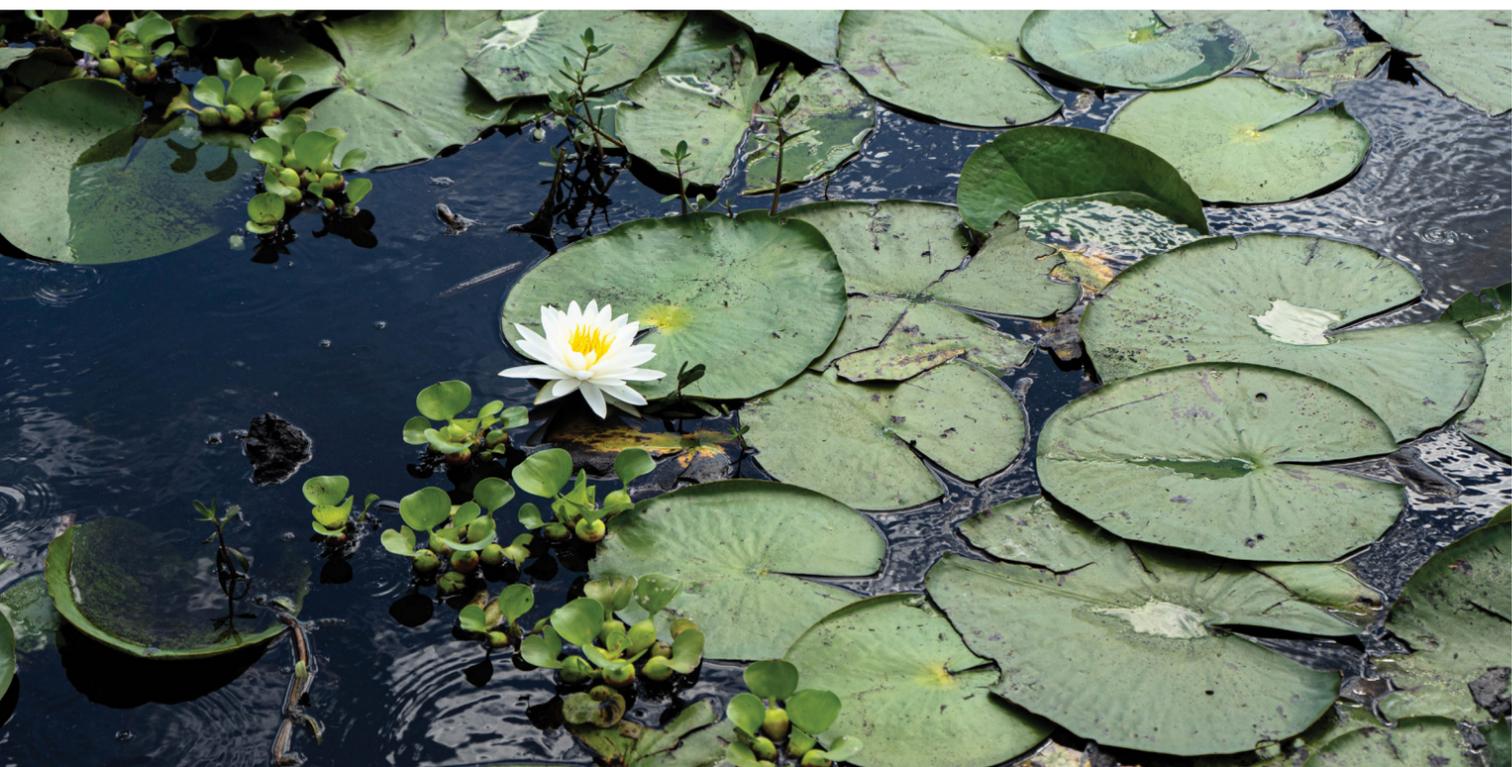
The solution is a program comprised of a device and a platform that meets the requirements of the unforgiving weather conditions on Lake Okeechobee, the whizzing and whirling of the airboats it needs to fit on, and an accurate, user-friendly platform.

Dew, Fair and Mangus, know that the all possibilities of this program have yet to be explored and further developed. Now the team has the data, and the imagery needed to be transparent to the public. The team can give them the



requested information in real-time: the when, where and how they are chemically and mechanically managing invasive aquatic plants.

In keeping with the promise of efficiency, efficacy, and accountability USACE, FWC, their partner agencies and contractors alike can strive to maintain clear waterways, keep our infrastructure safe, and conserve our native ecosystems.



Left: The impact of invasive aquatic plants like water hyacinth is devastating on native plants such as the water lily. The Water Hyacinth slowly encroaches on the lilies before succumbing to the water hyacinths aggressive nature.

Right: Top to Bottom: Jessica Fair, U.S. Army Corps of Engineers, biologist and Keith Mangus, Applied Aquatics, project manager view on a laptop how the Spray Tracker Platform developed by FWC’s Andrew Dew detects and collects the spray path of the licensed applicators out in the field in real time.

The 61st Commander

Story by Mark Rankin



Brigadier General Jason E. Kelly, Commanding General, U.S. Army Corps of Engineers South Atlantic Division, (Right) passes the Jacksonville District flag to Col. James L. Booth (Left) as he takes command of the Jacksonville District during a change of command ceremony Sept 9, 2021 at the at the Terry Theater, Times Union Center, Jacksonville. Photo by Mark Rankin

U.S. Army Col. James L. Booth took command of the U.S. Army Corps of Engineers (USACE) Jacksonville District Sept. 9, 2021 during a change of command ceremony at the at the Terry Theater, Times Union Center, Jacksonville. He became the 61st commander of the district.

Booth came to the Jacksonville District from the Combined Security Transition Command-Afghanistan where he served as the Engineer Branch Head and oversaw operations and maintenance support as well as construction oversight for Afghan National Defense and Security Forces infrastructure with an annual portfolio value in excess of \$700 million.

As commander of the Jacksonville District, he assumes responsibility for managing the second largest civil works district in the U.S. Army Corps of Engineers, with an area of responsibility that encompasses Florida, Puerto Rico and the Caribbean. The district provides quality planning,

engineering, construction and operations products and services in environmental restoration, flood risk reduction, navigation,

regulatory permits, hurricane and storm damage reduction, and emergency response and recovery.

During the change of command, the new commander highlighted the district's incredible missions like COVID response, Civil works, navigation, flood control and risk management, emergency management, regulatory and environmental responsibilities. He also noted the ongoing construction and work at the Herbert Hoover Dike Rehabilitation project and optimizing updates to the water control manual which will govern operations at Lake Okeechobee, and lauded the great reputation of

the entire Jacksonville District workforce.

Brig. Gen. Jason E. Kelly, commanding general, U.S. Army Corps of Engineers South Atlantic Division, officiated the change of command and said Booth comes to the Jacksonville District with extensive experience having served in USACE commands previously.

He emphasized that Booth is a seasoned professional and talented engineer officer who he has watched afar in Detroit, Albuquerque and Afghanistan. He is a star with a deployment history and phenomenal reputation.

Kelly said the Jacksonville District has an enormous and distinct responsibility and we are here to recognize and thank these two exceptional Colonels, Drew Kelly and Jamie Booth.”

“Welcome to the South Atlantic District... Jamie, Melissa, Evan , Cali and Alex,” said Kelly.

The new commander expressed his appreciation to the division commander and Col. Andrew D. Kelly, Jr. for the incredible opportunity to command the Jacksonville District.

He thanked Kelly for the tremendous transition

to the district over the last few weeks, and recognized his mentors and other commanders who led him to the point he reached today. He especially thanked his wife, Melissa, for her love and sacrifices over the years, and he expressed love, joy and pride for his children Evan, Cali and Alex.

He also expressed sincere gratitude for his parents and family in Florida, for their enduring commitment, support and unconditional love. Booth is a native of Keystone Heights, Florida, and said the community made him the man he is today. All have played an essential part in his growth, he said. He received his U.S. Army commission in 1998 and his previous assignments include: Executive Officer to the Commanding General of the United States Army Corps of Engineers; District Commander of the U.S. Army Corps of Engineers, Albuquerque District; Deputy District Commander of the U.S. Army Corps of Engineers, Detroit District; Battalion Operations Officer and Executive Officer of the 4th Brigade Special Troops Battalion, at Fort Stewart, Georgia (with deployment in support of Operation Iraqi Freedom and New Dawn).

His awards and decorations include the Bronze



U.S. Army Corps of Engineers Jacksonville District and its distinguished guests stand for the national anthem during a change of command ceremony on Sept. 9, 2021 at the Terry Theater, Times Union Center, Jacksonville, Fl. Photo by Dennis Franklin

Star Medal (two awards), the Defense Meritorious Service Medal, Meritorious Service Medal (six awards), Joint Service Commendation Medal, Army Commendation Medal (two awards), Army Achievement Medal (five awards), National Defense Service Medal, the Afghanistan Campaign Medal, the Iraqi Campaign Medal, the NATO Medal, the Combat Action Badge, the Parachutist Badge, and the Ranger Tab. He is also the recipient of the Army Engineer Association's Bronze Order of the de Fleury Medal.

Booth holds a Bachelor of Science in Civil Engineering from the Florida Institute of Technology, a Master of Science in Civil Engineering from Missouri University of Science and Technology, and a Master of Arts in Strategy from the Army War College. Col. Booth is a graduate of the Ranger Course and Airborne School. He is also a graduate of the Army Command and General Staff College, Fort Leavenworth, Kansas, and the Engineer Officer Basic and Advanced courses, Fort Leonard Wood, Missouri.

Booth commended the outgoing commander, Col. Andrew D. Kelly, Jr., and the many district employees, partners, national organizations, contractors and soldiers.

"I have a lot to learn about the district operations, but I'm excited about the challenge, and confident that I am in good hands. I have been nothing less than impressed with your competence and professionalism. I consider it an incredible honor to be able to serve alongside every member of this great district team," said Booth.

Booth said he is pleased to see that Jacksonville District approaches every project, from mega projects to the routine, with passion, tenacity and close partnerships.

Brig. Gen. Jason E. Kelly highlighted a few successes during Kelly's command.

"I'd like to share a few highlights from ... what I'll affectionately call... the Kelly administration," Kelly said.

Col. Kelly led the District through the COVID pandemic, increased virtual access and main-

tained open and transparent communication with the workforce; He seized opportunities to revolutionize how the district does business and much innovation was encouraged. Kelly said he grew the business process and altered it to match the enormous growth of the program through leadership training; the Herbert Hoover Dike Rehabilitation project is nearing completion and we're nearing the throes of optimizing the new water control manual and he has been a champion for the South Atlantic Division and the U.S. Army Corps of Engineers in Puerto Rico and the U.S. Virgin Islands.

"I'm convinced that the success of an organization is very dependent on the leadership of its senior-most member," said Kelly. "You've made a difference here and across the USACE enterprise and we are grateful."

In saying farewell, Kelly lauded the Jacksonville District's employees for supporting many hurricanes that pass-through Florida and most recently Hurricane Ida.

He commended federal, state, local and tribal partners that work with USACE daily to accomplish the missions.

"I am extremely grateful and humbled to have been the commander of the Jacksonville District," Kelly said. "Over the last three years we've been through a lot and accomplished so much more than we ever thought possible."

Kelly also thanked his wife Sheila for her continued love, support and strength through his tenure as commander, his mother from Syracuse, New York and also gave recognition to his two teen-aged sons for their support.

The Change of Command is a traditional ceremony that is rich in symbolism and military heritage. Passing the colors from the departing commander to the incoming commander emphasizes the continuity of leadership and unit identity, despite changes in individual authority. The ceremony also symbolizes the passage of responsibility from the departing commander to his successor.

MAN • HONORED

Julian Keen, Jr.

Story & Photos by Brigida Sanchez

Florida Fish and Wildlife Conservation Commission (FWC), Officer Julian Keen, Jr. grew up alongside the Caloosahatchee River in a small town. He played football, loved the outdoors, and dreamed by the river in Labelle, Florida. He belonged to everyone, and everyone belonged to him.

Keen held his inspiration to serve close to his heart. He was bold and confident when it came to pursuing his dream.

Lieutenant Pamela Steelman, FWC Officer, one of Officer Keen's mentors, spoke to his commitment. "In high school, Julian came off the football field and told me he would grow up to be a game warden. And I told him, 'come and see me when you graduate from college.'

Julian did just that. He applied; it took him a while; he passed the physical test with no problem. He had some trouble with swimming. We worked with him, and he became a

good swimmer, and even though it took him a while," Steelman says with a proud smile, "he never gave up."

Officer Keen already had a practice of service; he reaffirmed his dedication when he earned his shield. FWC Captain Lonnie Sushil remembers, "On his off time, he volunteered by coaching football and giving back to his community.

Julian showed young men like him that their opportunities were not restricted by their circumstances. He loved his time on the football field coaching and developing the next generation.

He did all of this, and not once did he ask or expect anything in return. He was humble. He let his actions speak for him, and he was a true superhero."

In June 2020, FWC officer Keen was shot and killed in LaBelle, Florida, after attempting to stop a hit-and-run suspect while off-duty. He

The Florida Fish and Wildlife Division of Law Enforcements Honor Guard stands ready during the Moore Haven Lock and Dam's renaming on June 18, 2021, Moore Haven, FL.

served more than six years with the FWC and was highly respected in his community. The passing of Keen was an event that crushed the heart of the Labelle community. Over a thousand people came to memorialize the selfless officer.

Through chance, Congressman Mario Diaz-Balart met Keen and, after the tragedy, attended his memorial service. It was then that Congressman Diaz-Balart decided to recruit the help of Congressman Greg Steube and find a way to commemorate the fallen officer by renaming Moore Haven Lock and Dam as the Julian Keen, Jr. Lock and Dam.

“The U.S. Army Corps of Engineers (USACE) typically names its structures after geographical features such as a nearby settlement, body of water, or by the name of the area or region.” However, writes USACE curator Eric A. Reinert in email correspondence. “It was only later on that projects were renamed after someone, by an act of congress as in this case with Moore Haven.”

The clouds hung low, and the crisp steps of the color guard echoed lament in the dense south Florida air on Friday, June 18, 2021, at the Moore Haven Lock and Dam’s renaming ceremony.

“Wildlife Officer Julian Keen, Jr. embodied the Army Values of Loyalty, Duty, Respect, Selfless Service, Honor, Integrity and Personal Courage,” said Col. Andrew Kelly, Commander of

the U.S. Army Corps of Engineers Jacksonville District. “He represents the best in all of us. He was a young man of outstanding character, deeply beloved by his community. In his memory, USACE is honored to rename the Moore Haven Lock and Dam as the ‘Julian Keen, Jr. Lock and Dam.’”

As part of the Water Resources and Development Act (WRDA) of 2020, Congressmen Steube and Diaz-Balart worked with the House Committee on Transportation and Infrastructure to include the renaming of the lock and dam in the final version of the bill.

Congressman Diaz Balart spoke to his experience. “Julian made an impact on so many people, a community, entire areas. He was clearly a dedicated law enforcement officer. He loved what he did. But also, he was just a good man, a decent man, a loving man and a shining light in the community. I witnessed that in an outpouring of love and of grief that I don’t think I have seen for anybody before.”

Many stood and gave emotional testimonies to the character of this dedicated public servant and why he was ever so deserving of the honor of having his legacy remembered. USACE, lead ranger Kavin Carter was one of the many USACE personnel who Officer Keen touched.

“He was one of the first to respond to certain incidents, and he’d help us deescalate. Julian was empathetic and civil in his approach with people, even though they violated certain rules

or regulations. For example, Keen would show up with his football player build, then he’d say, ‘Come on...’ and people would comply.” Carter pauses and says with a sigh, “the way he presented himself just put you at ease. We were all blessed to know him.”

Julian Keen, the man, honored has left an imprint on the thousands he has touched. The U.S. Army Corps of Engineers Lock and Dam will carry his name so that generations to come will remember that Keen’s strength was his sense of humanity.



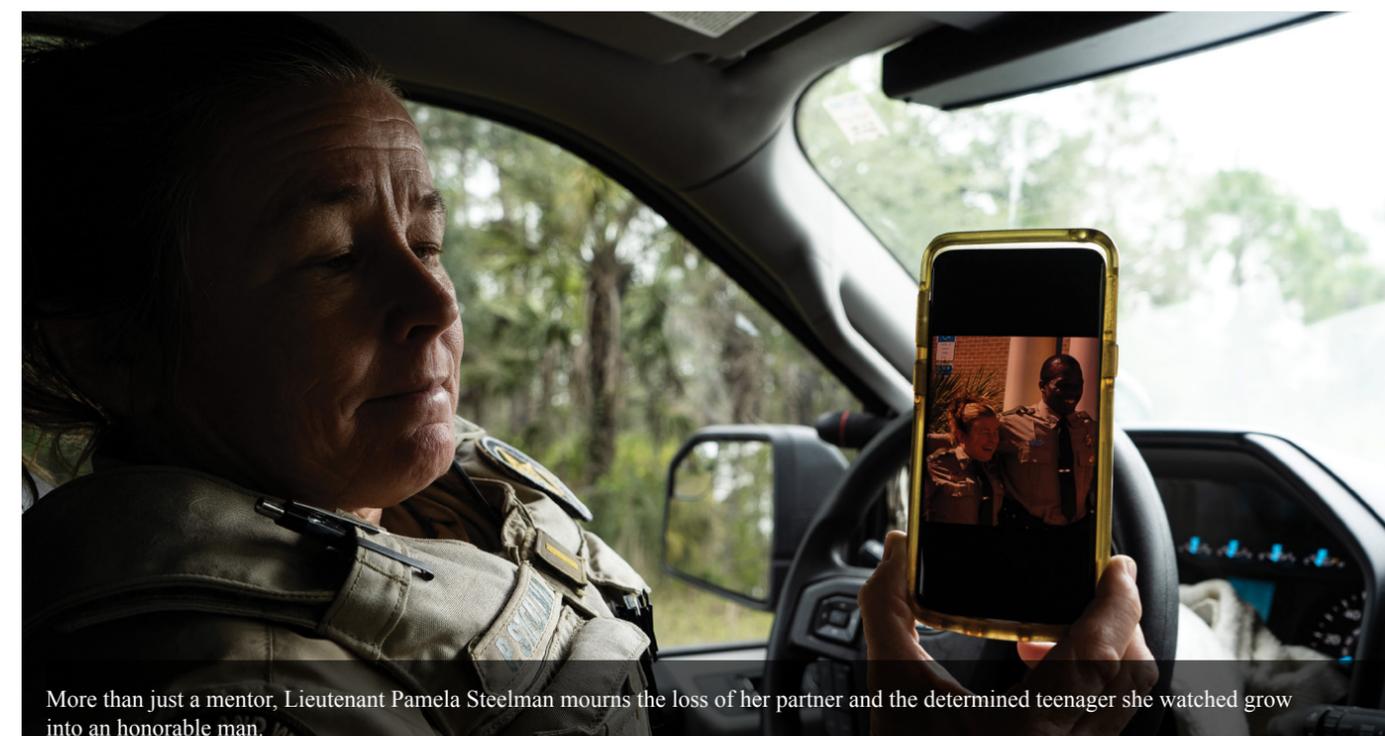
USACE, Park Ranger Kavin Carter, worked with and was touched by Keen’s humanity and selflessness.



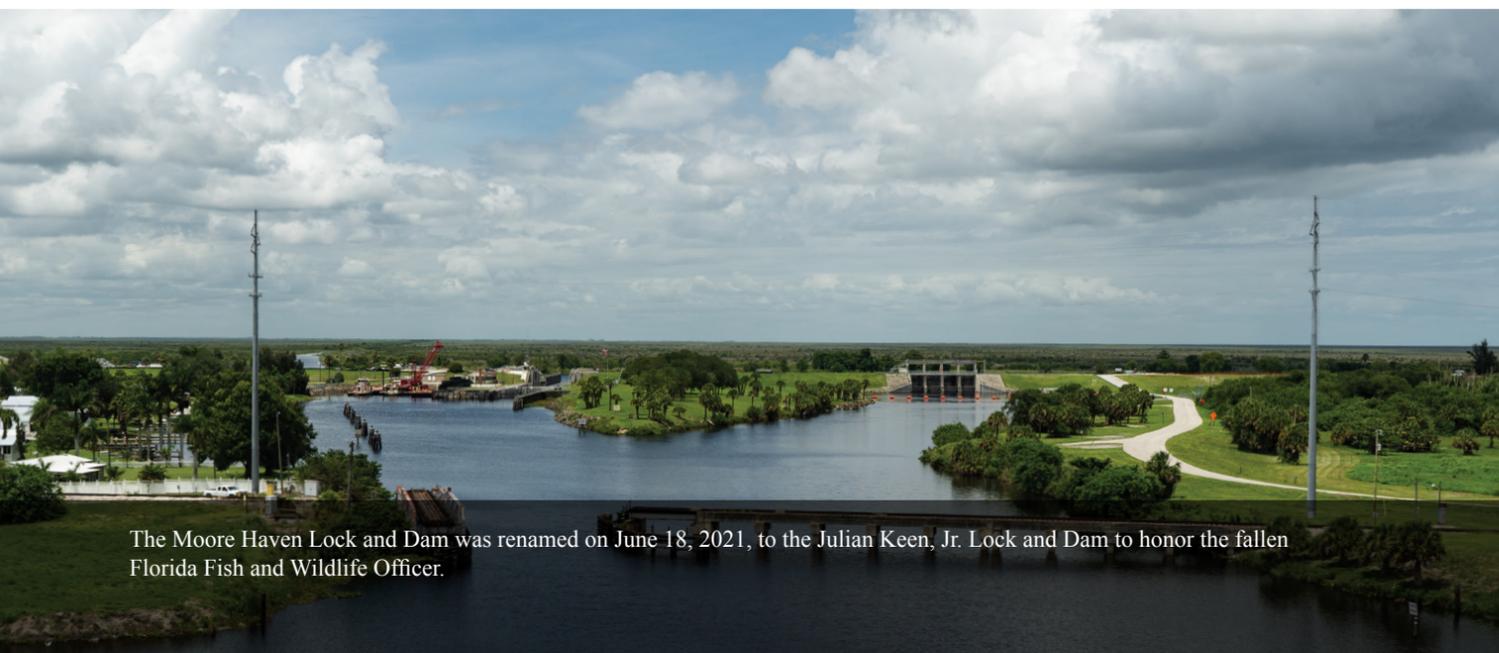
Congressman Mario Diaz Balart met Keen and initiated the renaming of the lock and dam.



FWC, Lieutenant Pamela Steelman, looks up at her partner Officer Keen.



More than just a mentor, Lieutenant Pamela Steelman mourns the loss of her partner and the determined teenager she watched grow into an honorable man.



The Moore Haven Lock and Dam was renamed on June 18, 2021, to the Julian Keen, Jr. Lock and Dam to honor the fallen Florida Fish and Wildlife Officer.



IT'S WHAT WE DO



1. The Jacksonville Districts executive team discusses its priorities during their weekly meetings. 2. The Jacksonville Districts operations team removes a bulkhead on the W.P. Franklin lock for inspection. Photo by Robert Hill 3. The Jacksonville District team met with the Honorable Albert Bryan, Jr. Gov. of the Virgin Islands, and his staff. 3. The Jacksonville District team met with the Honorable Albert Bryan, Jr. Gov. of the Virgin Islands, and his staff.

4. Rep. and Army vet. Greg Steube speaks with Col. Kelly after renaming the Moore Haven Lock and Dam. 5. USACE leadership and the Jacksonville District team meet with leadership in the Florida Keys. 6. An excavator removes the roadbed from Old Tamiami Trail, west of Miami as a part of CERP. 7. Col. Kelly visits his Miami team out in the field. 8. QA rep. Christopher Rauch and civil engineer David Davila-Marquez participate in a virtual meeting at their Ft. Pierce project site. 9. A bulldozer moves dredged sand on Ft. Pierce Beach.

JACKSONVILLE DISTRICT

Answers the Call

Story by Peggy Bebb

When the U.S. Embassy in the Dominican Republic requests U.S. Army Corps of Engineers (USACE) technical expertise, Jacksonville District's team of professionals stands ready to answer the call.

The Embassy reached out to the district earlier this year via the USACE liaison officer to U.S. Southern Command, looking for subject matter experts to assist in a variety of projects associated with the rehabilitation of Port Manzanillo.

Port Manzanillo is an agricultural region the government targeted for growth in the province of Monte Cristi, located in the northwestern corner of the country by the Haitian border.

These projects consist of in-depth analysis and investigation of the condition of the current pier, which the Port Authority wishes to keep in operation.

In addition, the construction of a new deep-water dock for post-Panamax vessels built adjacent to the existing pier will allow the simultaneous berthing of two Panamax-draft (4,500 – twenty-foot Equivalent Unit (TEUs) or post-Panamax-draft (8,500 TEUs) vessels.

The new pier will be expanded in the future

with more cells to receive 10,000 TEU vessels if demand rises and port operations intensify.

The existing capacity at the port only allows for small to mid-sized commercial cargo ships, mainly for exporting bananas and importing minerals.

Additionally, the Ministry of Energy & Mines is constructing a liquified natural gas (LNG) terminal to supply fuel to two 400-megawatt power plants to be built as part of the regional development and create a more robust electrical power grid.

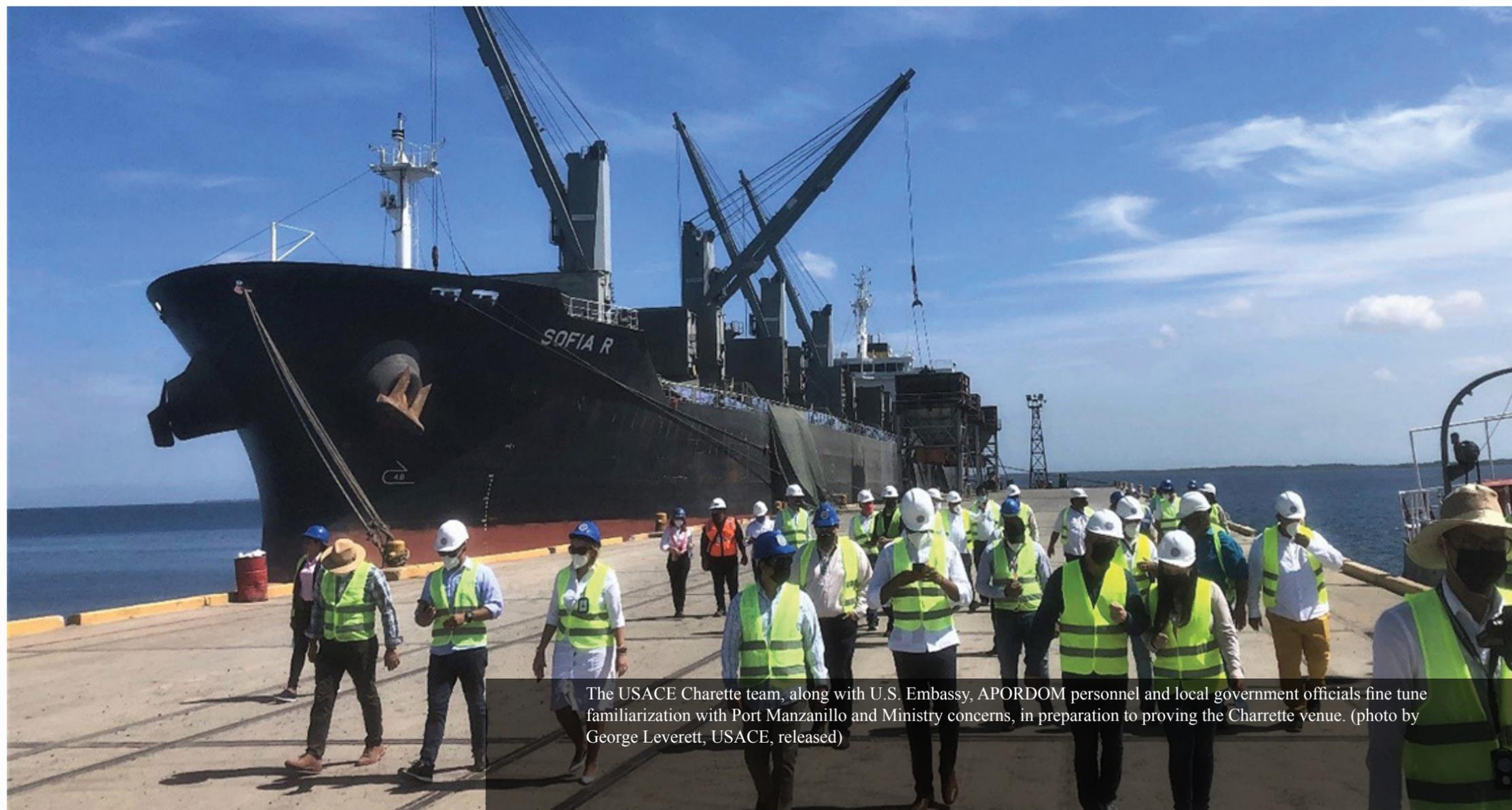
These proposed power plant facilities at Manzanillo are 60 miles from the power grid, so there will be an evaluation for the cost differential of building the power plants closer to the grid with

transmission lines to the port.

Lastly, there's a need for a cost evaluation for funds and scope viability for bridge repairs and repaving of 60 miles of the two-lane Durante Highway, the main artery to the Port of Manzanillo, stretching from Santiago to Monte Cristi.

The Ministry of Public Works requested assistance in evaluating the engineering and potentially performing drainage design for some areas of the Durante highway.

The best fit for this priority infrastructure project for the Government of the Dominican Republic is Jacksonville District's Military/Interagency & International Services (MIL/IIS) Branch since the Dominican Republic falls within the district's Area of Responsibility (AOR).



The USACE Charette team, along with U.S. Embassy, APORDOM personnel and local government officials fine tune familiarization with Port Manzanillo and Ministry concerns, in preparation to proving the Charrette venue. (photo by George Leverett, USACE, released)



Hal Cardwell, USACE institute for Water Resources (IWR), participates in the meeting as the charette lead. (photo by U.S. Embassy Santo Domingo, released)

MIL/IIS Program Manager Marcello Salles explained that USACE provides reimbursable technical services to other federal agencies and states, local and international governments, and Native American Tribes.

The objective of this program is to identify and match USACE’s engineering and related services with the evolving needs of American and International society.

The design, engineering, and construction management capabilities of USACE can complement the expertise of other agencies in accomplishing their programs.

“In the age of government downsizing, many agencies need the capability to accomplish engineering or construction support of their mission effectively. USACE can fill that void,” says Salles.

In March of this year, Salles visited the island along with South Atlantic Division’s Military Integration Division Chief Torild (Tor) Brunso to examine the team’s requests and define the requirements and scope of work.

This four-day visit consisted of meetings facilitated by the Ministries of the Presidency, energy and mines, public works and communications, the environment, and the general directorate of public-private partnerships.

The team also met with the American Chamber of Commerce and a regional environmental non-profit firm that works with the U.S. Agency for International Development (USAID). These meetings resulted in Salles and Brunso recommending a planning charrette in late August to further assist in defining the scope of work and paving the way for the possibility of a future

partnership.

USACE’s authority to engage in this type of request is the Foreign Assistance Act, Section 607, an international bi-lateral agreement between USACE and the Government of the Dominican Republic.

An alternative to assisting the Government of the Dominican Republic through the Section 607 Agreement is through USAID by signing a Participating Agency Service Agreement (PASA) with USAID. USAID has expressed its interest in doing so.

However, a clear and executable scope of work and a cost estimate for USACE support are needed to establish either of these two agreements.

The charrette is the path to establishing the Dominican Republic’s technical gaps and needs, thus shaping the scope of work for USACE assistance to their government.

The planning charrette was conducted August 2021 in Santo Domingo, Dominican Republic. The USACE team met with the Dominican Republic government and U.S. Embassy officials to lead the charrette.

Salles states, “We had a very successful charrette with high-level participation from ministry and U.S. Embassy officials, where the President of the Dominican Republic, together with the U.S. Embassy Chargé d’Affaires opened the event. Both were personally out briefed one day after the charrette at the Deputy Chief of Mission’s residence.”

Dominican Republic President, Luis Abinader speaks to charrette attendees. (Phot by U.S. Embassy Santo Domingo, released)

The charrette identified five areas where USACE could assist:

- Establishing a project management control office in the Government of Dominican Republic for the Port of Manzanillo project.
- Developing master plans for the project and economic development of the region.
- Reviewing tender/solicitation of the LNG Powerplant.
- Design and construction consultation.
- Sharing processes for public participation.



The next step was to develop the scope of work and cost for USACE assistance to be inserted into the Participating Agency Service Agreement (PASA) with USAID and the FAA Section 607 agreement with the Government of the Dominican Republic. USAID recommended amending an existing PASA that the USAID mission in the Dominican Republic had with USACE's Institute for Water Resources (IWR), for Jacksonville District to execute the first 3 bullets identified above. This was done and the amended agreement was signed on 29 October 2021. The district is now working with USAID and the Dominican Republic Government to further identify the scope of effort, the delivery team, and the work plan. The FAA 607 agreement directly with the Dominican Republic Government is still under development.

All accounts considered the planning charrette was a success and provided the team with the necessary elements of a scope of work to forge an executable agreement between the two nations.

In true USACE fashion, our team of professionals stands ready to further this international partnership, ensuring USACE is at the forefront of providing support when and where it is requested.



Condition Assessment Meeting between USACE, the US Embassy Santo Domingo and the Government of the Dominican Republic with the Minister of the Ministry of the President, Lisandro Macarrulla (Center), Chief of staff Carmen Minaya (right), and Bill Swaney, Acting Deputy Chief of Mission, seated to the left. Photo by George Leverett, USACE, released)

SURFSIDE ASSIST

Cutline and Photos by Mark Rankin

The unthinkable occurred June 2021 when the partial collapse of a condominium complex in Surfside, Florida occurred. Following the collapse, President Joe Biden signed a disaster declaration activating federal responses and Jacksonville District personnel deployed to the site two days after the tragedy.

In support of FEMA, the lead response agency, the U.S. Army Corps of Engineers (USACE) provided three engineering, two debris and one Emergency Support Function #3 (ESF3) subject matter experts to aid with on-site response efforts. In addition, one structural engineer deployed to the site to observe and capture lessons learned to improve USACE's structural engineering training program.

Jacksonville District engineers assisted engineers from the federal agency National Institute of Standards and Technology (NIST) deployed to Surfside with Congressional authority to gather evidence and determine how and why the Champlain South Tower collapsed. NIST is the fact-finding agency responsible for investigating building collapses such as the World Trade Center, much like the NTSB investigates plane crashes.

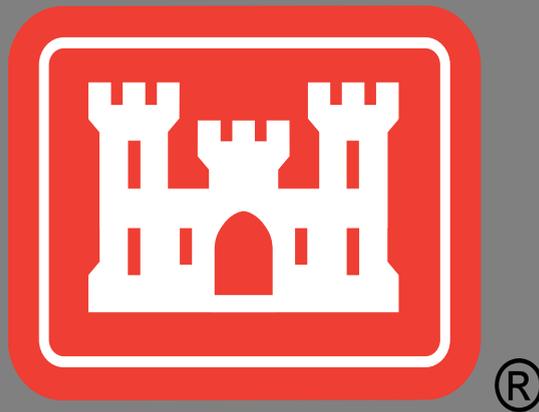
During emergencies, USACE operates in close coordination with local, state, and federal partners in the affected areas.

In any disaster, USACE's three top priorities are:

- o Support immediate life-saving and life-safety emergency response priorities;
- o Sustain lives with critical temporary emergency power and other needs;
- o Initiate recovery efforts by assessing and restoring critical infrastructure.



The U.S. Army Corps of Engineers, Jacksonville District, delivers value to the nation by anticipating needs and collaboratively engineering solutions that support national security, energize our economy and increase resiliency.



www.saj.usace.army.mil

