

# PALMETTO CASILE

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Cover photo by Sara Corbett

The Charleston District hosted the Wounded Warrior Project to fish at St. Stephen Powerhouse and fishlift, read more about this event on page 4.

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# From the Commander

Spring has definitely arrived here in Charleston. The weather has warmed up and everything is in bloom. Just as brightly as things are flourishing all around the Lowcountry, so is the mission that we do. There has been progress on our projects since our last issue and this edition of the Palmetto Castle features a few of those. Also, thanks for all of your input on our annual customer surveys. It's the valuable feedback from you that helps us to determine how we are serving you. The Military Customer Satisfaction Survey results are highlighted in this issue and we just wrapped up the Civil Works survey this week and those results will be forthcoming in the next issue. We aim to provide nothing less than best, and it is your input that helps us in doing so.

In this issue we highlight our inaugural Wounded Warrior Project fishing event. This event saw approximately 20 Wounded Warriors and 15 students from Ashley Hall enjoying a day of fishing, a tour of the fishlift and lunch. The camaraderie shared between the Wounded Warriors and the students was remarkable. The students were able to gain a lot of knowledge by using a hands-on approach by measuring the length of the fish that were caught as well as doing some scale sampling and sex determinations. The Wounded Warriors were able to showcase their fishing skills while enjoying the unique opportunity of fishing the canal's tail race. It was very rewarding for me to be able to host this event and to be able to personally take part in thanking each of them for their sacrifice and service.

An especially proud moment for the District was the completion of the VA Mental Health Research Facility in Charleston. Veterans will benefit from this facility for years to come. The USACE Chief of Engineers, Lt. Gen. Thomas Bostick visited and toured the completed facility and was impressed by the state-of-the-art testing and research the VA can perform.

For National Engineers Week, more than 100 students from five different schools including Charleston Charter School of Math and Science and Timberland High School toured our fishlift. Over time, we have forged a great relationship with some of our local schools and are happy to have them participate in events that help to cultivate the STEM path. It's our way of giving back and investing in the future. The students enjoyed the newly renovated visitor center and learning area.



This will be my last Palmetto Castle article as my time here in Charleston winds to a close this July. It has been a great honor to serve as the District Commander for the last two years with such a customer-focused and mission-oriented team of professionals who are dedicated to serving South Carolina and our nation. I have thoroughly enjoyed my time here at the District and appreciate the trust that our organizations share. I will transfer leadership to Lt. Col. Mathew Luzzatto during our Change of Command ceremony on July 10, 2015. Matt has an incredible amount of experience, including previous Corps experience, which will allow for a seamless transition.

Thank you for your partnership. It has truly been a pleasure to serve you.

**BUILDING STRONG!**

A handwritten signature in black ink, appearing to read "John T. Litz".

John T. Litz  
Lt. Col., U.S. Army  
Commander and District Engineer  
[John.T.Litz@usace.army.mil](mailto:John.T.Litz@usace.army.mil)

# PROUDLY SUPPORTING THE WOUNDED

Article by Sean McBride

Photos by Sara Corbett

The sounds of exclamation and nervous squealing were prominent on March 20, when the Charleston District hosted their inaugural Wounded Warrior Project fishing tournament with Wounded Warriors from around the Lowcountry. Approximately 20 Wounded Warriors attended the event, which was held at the District's St. Stephen Powerhouse and fishlift.

The Wounded Warriors spent the morning fishing in the tailrace canal for American shad, blueback herring and catfish, and were rewarded with lots of success, which accounted for the sounds of exclamation. But the day wasn't about fishing. It was about providing an activity for our nation's heroes.

"I've reconnected with a lot of old friends and met a lot of new ones and the Corps has been great," said Matthew Witkowski, a Wounded Warrior. "We're catching fish or we're not catching fish and we're still having fun. You're around guys and gals that understand. You don't have to explain if something happens and you start to get the shakes because you can recognize other people's symptoms and they can recognize yours and lend a hand and you know you're amongst friends."

The day was also an opportunity for STEM outreach with Ashley Hall School. Junior girls from the marine biology class came out to aid the Wounded Warriors, as well as learn about fish biology from the South Carolina Department of Natural Resources. The girls were put in charge of collecting fish, and then measuring and sexing the fish, as well as collecting scale samples, which is where the sounds of nervous squealing came

from.

"[Fishing] is very important to the biological aspect of South Carolina and DNR because we're taking data of fish that are going through the fishlift," said Liz Walters, a junior at Ashley Hall. "It means so much to be around the Wounded Warriors and my classmates and builds a strong sense of character in the community and builds that connection that we'll remember even as we get older and recognize service members."

The event was held in the middle of fish spawning season, which runs from February 1 through May 15. During this time, most of the 750,000 fish that pass through the fishlift each year will swim through to spawn. This heavy influx of fish made it an ideal time to hold the fishing tournament and collect data on the spawning fish.

The event was a successful day of outreach with both the Wounded Warrior Project and Ashley Hall. The Charleston District is proud to aid in the recovery of our nation's heroes and help grow the minds of our future leaders.

**This page, bottom left: Joe Moran, fish biologist, teaches a student from Ashley Hall how to fish. Bottom right: The students gather around one of the Wounded Warriors who they awarded a fishing pole to for the best example of the schools motto: "Girls who have the will have the ability."**

**Opposite page, top: Wounded Warriors enjoy a beautiful day fishing. Bottom left: Students measure and take scale samples from a fish. Bottom right: A Wounded Warrior casts his line in hopes of catching the biggest fish of the day.**

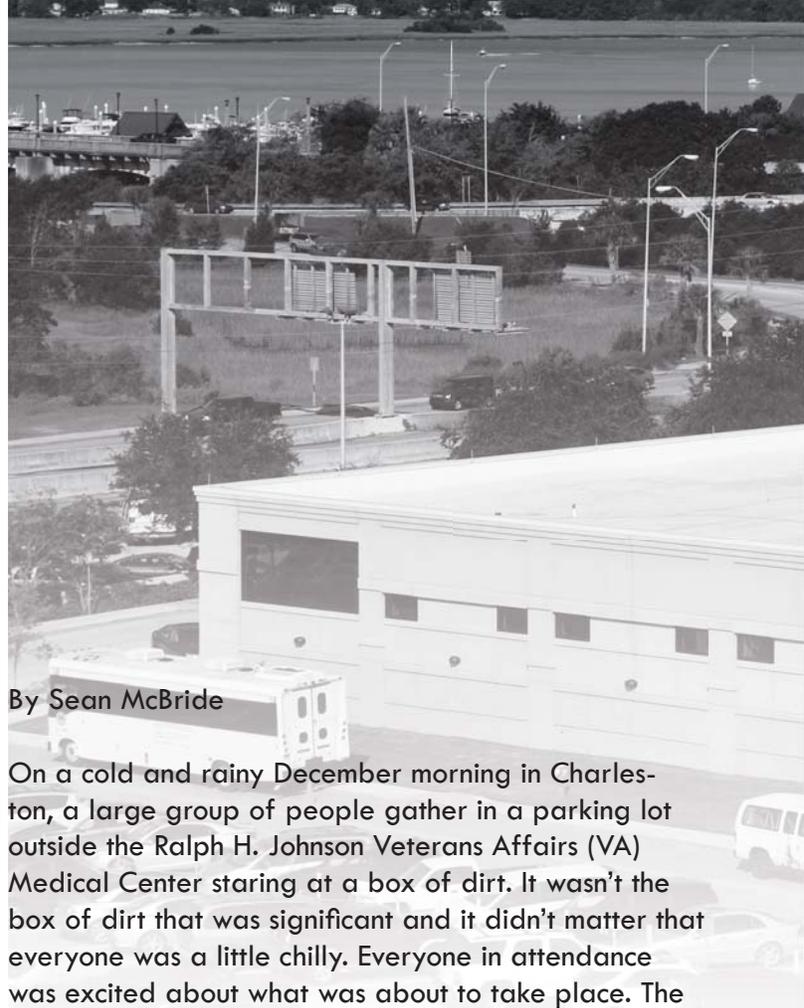


Palmetto Castle



# WARRIOR PROJECT





By Sean McBride

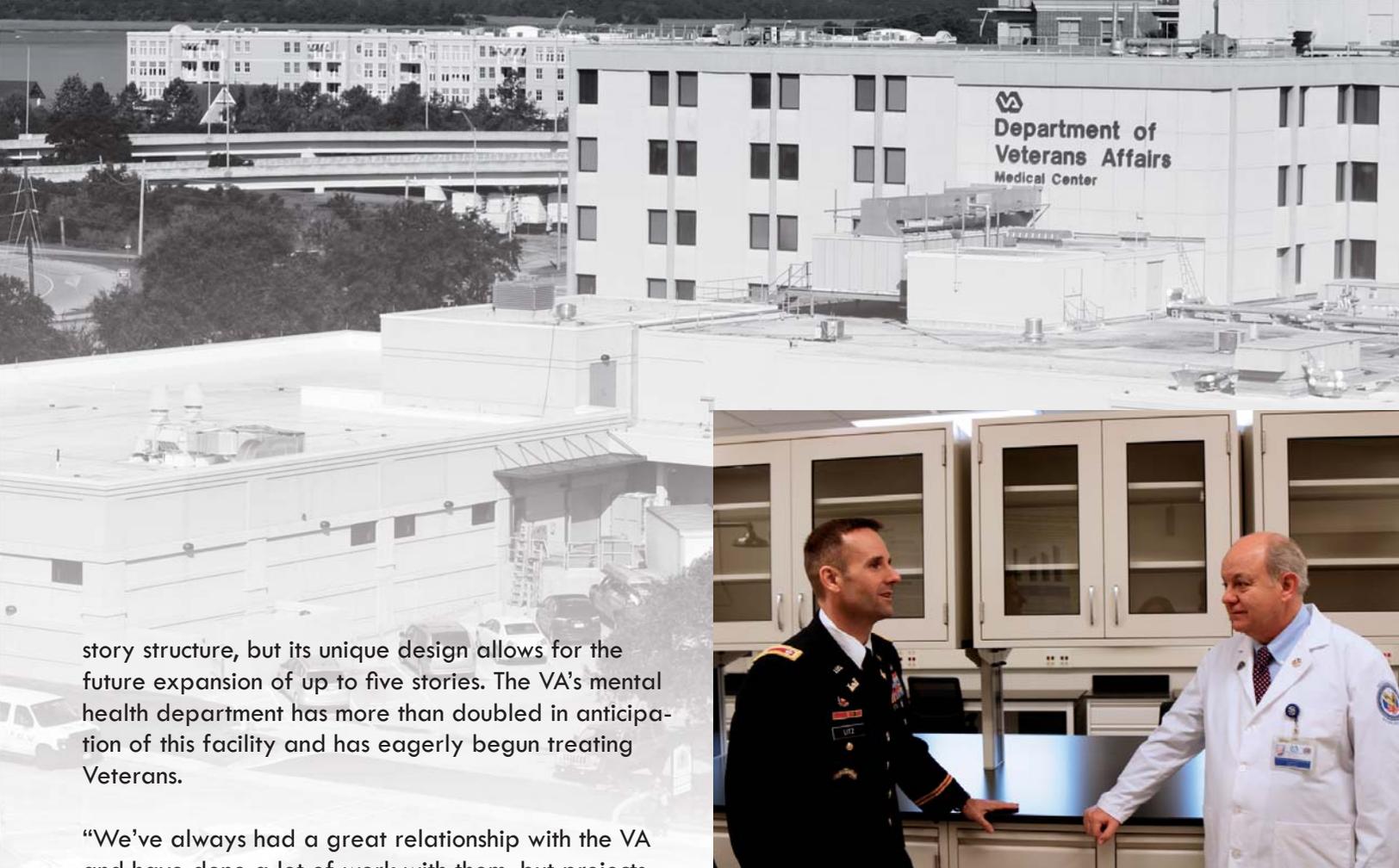
On a cold and rainy December morning in Charleston, a large group of people gather in a parking lot outside the Ralph H. Johnson Veterans Affairs (VA) Medical Center staring at a box of dirt. It wasn't the box of dirt that was significant and it didn't matter that everyone was a little chilly. Everyone in attendance was excited about what was about to take place. The box of dirt signified what was to be the ground breaking of the new Mental Health Research Facility at the VA hospital.

A cold morning of motivated speakers and a ceremonial turn of dirt was just the start of a facility that had long been needed in the area. The Mental Health Research Facility will serve those who have returned from war who are now struggling with wounds you can't see. The \$8.5 million, 16,000 square foot structure will host labs and clinical space to speed treatment discoveries for our nation's heroes.

"The VA is the expert on mental health care for our nation's heroes," said VA Medical Center retired Director Carolyn Adams. "We are proud of the fact that we are discovering the best evidence-based treatment methods for the hidden wounds of war and that we have one of the nation's best clinical teams to deliver the best care anywhere for our heroes. Our highest priority is to make sure our Veterans receive the very best proven treatment methods for their care."

The Charleston District constructed the facility over the course of two years, with more than 73,000 hours of accident-free, quality construction, culminating with a ribbon cutting in January 2015. The facility is a one-

# FROM THE GROUND UP



story structure, but its unique design allows for the future expansion of up to five stories. The VA's mental health department has more than doubled in anticipation of this facility and has eagerly begun treating Veterans.

"We've always had a great relationship with the VA and have done a lot of work with them, but projects like this one have a special place in my heart as a service member myself," said Lt. Col. John Litz, district commander, at the ribbon cutting. "Along with the VA, we realize the implications that come with this facility and it's our pleasure to be a part of it."

Thousands of Soldiers have deployed or will deploy in support of this great nation and the transition back to the civilian world often represents a stressful period of change, uncertainty and isolation for Soldiers and their families. Behavioral health care can make a huge difference in the lives of these Soldiers who have sacrificed so much for us. The Charleston District is proud to have constructed a facility that will be so integral to our nation's future.

Opposite page, upper left: Dr. Kathleen Brady, Mr. Scott Isaacks, Lt. Col. John Litz and The Honorable Carolyn Clancy, MD participate in the ribbon cutting.

Opposite page, center left: A Corps' project manager oversees construction of the project.

Opposite page, bottom left: A crane is used to place some piping.

Top center: The completed Mental Health Research Facility.

This page upper right: Lt. Col. John Litz talks with one of the doctors at the facility.

This page, bottom left: A drill is used to make holes for underground pipes.

# Monumental Achievements

By Sean McBride

Another year down, another year of customer survey results received.

Our annual Military Customers Satisfaction Survey revealed a higher overall satisfaction score in our work than in the previous three years. Additionally, the response rate from our customers was higher than last year, which is important for the Charleston District in order to learn what needs to be adjusted and implement changes in the coming year.

Many customers gave us written feedback as well, both positive and negative. These responses are the most crucial to our success because they are concrete examples of things we have done well and things we can improve. Examples of these are included in the display on these pages.

Additionally, after the survey results were calculated, we received exciting news about a specific employee who has shown great work for one of our customers. Charleston District leadership received an email stating that Gary Wilder, at our Construction and Survey Annex office, had been doing outstanding work.

“Gary Wilder, at the construction office, continues to provide our unit unparalleled customer support and project management oversight,” wrote Maj. David D. Walters, executive officer of the 841st Transportation Battalion at Joint Base Charleston, in an email. “The battalion commander of the 841st Transportation Battalion has approved an Achievement Medal for Civilian Service for Gary.”

Wilder has worked on several projects for the 841st, which is under the Military Surface Deployment and Distribution Command, including building renovations, HVAC replacements and is currently working on a track lighting project that will provide lighting for trucks to load and unload at night.

“This award was a huge surprise,” said Wilder. “I couldn’t ask for a better customer to work with and look forward to continuing working with them.”

Together Lt. Col. John Litz, Charleston District commander, and Lt. Col. Brian Memoli, 841st Transportation Battalion commander, presented Wilder with this special award.

This achievement makes the Charleston District proud and is the best type of customer feedback that we could receive.



# 2014 MILCON Customer Survey

## By The Numbers

### Who participated?

**8** Joint Base Charleston

**5** Fort Jackson

**5** MARFORRES

**14** Other

**Total Invited: 33**

**Responders: 27**

**#2 Ranking Among  
Small USACE Districts**

### Response Rate Improvement

FY 14: 81.8%

FY 13: 75.6%

FY 12: 92.5%

FY 11: 83.8%



## What Your Comments Tell Us

All scores are the average from all responders out of a possible 5.0, which is the highest score

**Question 3: Treats you as a Team Member**



**4.81**

**Question 7: Reasonable Cost**

**4.32**

(our lowest score)

**Question 15: Environmental Compliance**

**4.86**

(our highest score)

**4.63**

Overall Customer Satisfaction Score (up from 4.51 in FY 13)

**Question 21: Cost Estimating**

**4.53**



**Question 5: Provides Timely Service - 4.52**



**Question 8: Is Flexible in Responding to Your Needs - 4.63**

**Question 2: Manages Effectively**  
**4.48**

**Question 4: Resolves your concerns**

**4.70**

All scores and comments are used to improve our processes going forward into the next year to help create a better experience for each of our customers.

# Vigilantly Prepared

Article and photos by Sara Corbett



Sounds of moans, groans and shouts for help greeted the crowd as they walked to the Carolinas MED-1 medical field hospital. As the wounded were moved from a van to MED-1, the group could see glass shards lodged in arms, legs gashed with deep, jagged cuts and faces contorted with pain. The moans were met with soothing reassurances of support and promises of quick relief by first responders.

While this paints the picture of a tragic accident, fortunately it was only one of the exercises in the weeklong drill called Operation Vigilant Guard. Operation Vigilant Guard is a series of statewide disaster-response drills that are conducted by the South Carolina National Guard. This particular Vigilant Guard exercise went through every action and motion that would take place should a category 4 hurricane hit the Lowcountry. The exercise consisted of 5,000 first responders, local, state and federal agencies, and 2,000 South Carolina Military Department members. Since the U.S. Army Corps of Engineers, Charleston District can be tasked by the Federal Emergency Management Agency to assist should disaster strike, it's critical that District employees attended the training so they could learn and prepare for response procedures.

"Drills, like Operation Vigilant Guard, are necessary to prepare for disaster responses," said Maj. Nathan Molica, deputy district commander. "You don't want to wait for an event to happen to figure out how to respond; being proactive is paramount for disaster response."

The morning started out with a briefing about "Hurricane Zephyr," the damage done to the



area and responses coordinated to assist with recovery. After the briefing, the tour group moved to MED-1, which was set up at the Georgetown Airport Airfield. MED-1 is a mobile 1,000- square-foot patient care hospital that is designed, equipped and staffed to manage minor injuries and wounds to operative trauma surgery and intensive medical care. The hospital can be set up and ready to treat patients within 45 minutes of arriving on the scene.

From there, the group was moved to the Choppee Recreation Complex, which was bustling with action. First responders were pulling mannequins out of rubble while military personnel were constructing temporary structures. The complex consists of several empty buildings, including an elementary school, that Georgetown County plans to demolish. To add to the authenticity of the exercise, the SCARNG received permission to blow up a portion of the school. This provided an opportunity for first responders to mimic a search and rescue

mission, where they were tasked with successfully rescuing 10 mannequins from the debris.

The most exciting and final exercise was a search and rescue for “victims” stranded on the Atlantic Intracoastal Waterway. Military rescuers propelled down from a UH-60 Black Hawk helicopter where they quickly harnessed the victims to themselves and were lifted back to the helicopter.

Because of Operation Vigilant Guard, the Charleston District and the state of South Carolina are vigilantly prepared for any disaster that should strike the Lowcountry.

**Left: A military rescuer is lifted back to UH-60 Black Hawk helicopter after rescuing a stranded victim.**

**Top: Anne McCartney, engineer, surveys the damage done to a demolished building.**

The final phase of the U.S. Army Corps of Engineers, Charleston District's \$30 million Folly Beach Renourishment project was successfully completed.

"We fenced and grassed along the existing dune line to capture the recently placed sand," said David Warren, project manager. "This concept has proven to be very effective in the past and new dunes up to two feet tall can be in seen in about a month."

This \$500,000 fencing and grassing project includes 800 "V-shaped" structures that help trap windblown sand. The "V-shapes" are made of wooden slats and anchored by three posts with the open section of the "V" facing the beach. About 100,000 sea oats and bitter panicum plants were planted behind the fences and will help stabilize dune growth.

The District started fencing at the east end of the island at 10<sup>th</sup> Street East and continued along the nearly five miles of beach until the Charleston County Park on the west end. The entire project was completed in March. The District chose this time of year to complete the project because there are fewer people and it won't have any effect on turtle season, which runs from May through October.

The Corps looks forward to watching the dunes grow.

**Top left: Fencing is tightly coiled before being placed.**

**Top center: David Warren, project manager, inspects the recently planted sea oats.**

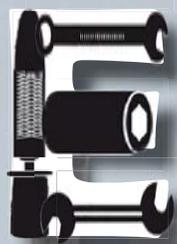
**Top right: The recently placed fencing.**

**Bottom: The fencing and grassing project was completed in March 2015.**





**Miles of Fencing and Grassing**



# ENGINEERING

Photos and article by Sara Corbett

To engage young minds and provide a hands-on learning opportunity for students, the Charleston District hosted five schools at the St. Stephen Powerhouse and fishlift and the South Carolina Department of Natural Resources' Bayless Fish Hatchery this spawning season. To make the students visit more beneficial, Joe Moran, fish biologist, went into the classrooms and gave students an overview of the history of the powerhouse, the function of the fishlift, the types of fish that pass through and the purpose of the hatchery so that the students had all the background information they would need prior to visiting.

With a national theme of "Engineering New Horizons," the District was excited to host four schools that had never been to the fishlift before. Charleston Charter School of Math and Science visited Feb. 25 to celebrate Engineer's Week, which was Feb. 22-28, Timberland High School and Ashley Hall visited during March and Porter Gaud and South Carolina State University visited in April. The students toured the fishlift, where they watched fish pass through and learned more about the mechanics of the lift. During the tour of the hatchery, the students learned about fish tagging, breeding, how fish are raised in the hatchery and their release into their natural habitat.

The Charleston District is proud to be making an impact on so many young minds, more than 100 students were exposed to this unique facility.

"I really like the fact that [DNR] are breeding more fish to put back into the ecosystem," said Rachael Baker, a CCSMS student. "I didn't know they did that here."

During spawning season, Feb. 1 to May 15, self guided tours are available from 10:00 a.m. to 3:00 p.m. Monday through Friday. Guided tours are available every day, including Saturday and Sunday, but must be scheduled through the Dennis Wildlife Center in Bonneau, SC, at 843-825-3387.



# MINDS



Top right: Students eagerly look at the fish tanks at the hatchery.  
Middle right: The fishlift is a short walk from the hatchery, making it easy for students to travel back and forth.  
Middle right: James McDonald, DNR tour guide, talks to the students about fish breeding and tagging.  
Bottom right: Students look down at the fish passage as Joe Moran, fish biologist, explains how the passage is maintained.  
Background photo: An aerial photo of St. Stephen Powerhouse and fishlift.



# Polk

By Dudley Patrick, project manager

On a clear, cool winter day, 20 seniors and two teachers from the Charleston Charter School for Math and Science (CCSMS) got a chance to spend a few hours visiting Polk Swamp near the Town of St. George in upper Dorchester County with several U.S. Army Corps of Engineers, Charleston District engineers and scientists. CCSMS' mission is to educate students for success in college and careers by providing an "innovative learning environment." That "innovative learning environment" became, for a few hours and for those 20 seniors, Polk Swamp.

Polk Swamp is part of the Edisto River watershed, which is the longest undammed blackwater river in the U.S. It also contains a large stand of bottomland hardwood trees, which are disappearing at a rapid rate in the swamps and wetlands of the southeastern U.S. These trees, with their unique knee-like roots that grow toward the sky, have been damaged and destroyed from decades of ice and wind storms, tree falls, poor logging practices, and beaver infestations, which have also caused flooding from numerous obstructions to the natural flow of the swamp.

The students were invited to visit the swamp so they could learn how members of the Polk Swamp project delivery team were solving the problems at the swamp. Upon arriving at the site, they received an overview of the District's missions and Polk Swamp and the history of the project. The class broke out into two groups; one went to learn about the ecosystem and one went to learn about hydraulic engineering and after 45 minutes, the groups switched.

Jesse Helton and Mark Messersmith, biologists, presented the ecosystem session. Helton and Messersmith discussed the importance of wetlands and how to identify them. Students were given the opportunity to take soil samples using an auger to compare upland and wetland soils. They were also asked to compare adaptations of plant species found in uplands to those found in wetlands. Students were very eager and asked about the District's ongoing study in Polk Swamp

**Top left: A student takes a soil sample using an auger.**

**Bottom left: The cattails were a big hit with the students.**

**Top right: Biologists discussed the effects the beavers have on the ecosystem. To showcase that they had the students examine a beaver skull.**

**Bottom right: A caterpillar suns itself on a leaf in the swamp.**



# Swamp

and what kinds of career opportunities are available in the Corps. Helton and Messersmith also recalled to the students a recent day in the field where they traversed 11 miles of swamp choked with weeds, cattails, beaver dams and fallen trees with representatives from Dorchester County. The team donned hip waders and used canoes to move through the swamp, locating, documenting, and photographing major blockages to model the conditions of the swamp in order to develop alternatives to restore the stream channel and hardwood forest habitat.

"I really enjoyed going down to the swamp and learning how beaver's dams can cause a lot of damage to the ecosystem and how the dam can block off the water that the swamp needs," said Antavius Farr-Heyward, a student at CCSMS.

The hydraulic overview was presented by Sara Brown, hydraulic engineer, and assisted by Anne McCartney, civil engineer. Brown explained that the role of a hydraulic engineer is to predict flows from a watershed, compute water levels, consider the impacts to the floodplain, assess how to improve water levels, and consider how to implement or construct a project that will improve the overall hydraulic, and in this case, environmental conditions in the watershed. Students were shown how District engineers prepare for field visits to Polk Swamp by gathering information such as maps, aerial photographs, land use and topographic data, past studies, rainfall data, etc. Brown explained how all this data plus information gathered during the fieldwork would be used to develop a model of the hydraulic conditions in the swamp. Students were asked to consider what other types of information would be needed before alternatives could be developed to implement and construct a project that would restore the hydraulic conditions to a more natural state.

Before departing, several students walked to the edge of the swamp, broke off cattails, and proceeded to "cover" the area with clouds of fluffy white cattail seeds, concluding their day in an "innovative learning environment."



A public meeting to present information on the Feasibility Study for Polk Swamp was held April 16. For more information please contact Dudley Patrick, project manager, at 843-329-8160 or [Dudley.Patrick@usace.army.mil](mailto:Dudley.Patrick@usace.army.mil).



# Get Moving to Get Healthy



By Sara Corbett

Everyone talks about being in shape, losing weight and eating healthy, but it's a lot easier to talk about it than actually do it. I would know. I recently lost 60 pounds and it took a long time to get there and not a lot of just talking about it. It's no easy feat to lose that much weight. It requires dedication, hard work and strong willpower.

I gained 60 pounds when I was pregnant with my son, who was born in June 2009. While I have been active and eaten healthy most of my life, I took on the attitude that since I was pregnant I was going to eat what I wanted and was not going to exercise. After my son was born, it took me several months to get back in the groove of exercising and eating healthy. While I was able to lose most of the baby weight from my first pregnancy, I was not able to lose it all before getting pregnant with my daughter.

During my second pregnancy, I was much more careful with what I ate, did barre classes and swam several times a week and only gained a healthy 35 pounds. After my daughter was born in February 2012, I started exercising as soon as my doctor cleared me. I continued doing barre classes but decided to add running to my routine. To motivate myself, I signed up for the 2012 Kiawah Half-Marathon. When I first started training, I could barely finish a mile and it took me more than 12 minutes to finish it. Undeterred, I continued training and had only one goal when I ran Kiawah- to finish without walking. To support me, my husband ran with me and we finished the half-marathon in 2:49. Since then I have run three half marathons, including Kiawah again in December 2014. This time we completed the half-marathon in 2:17, which was an exhilarating feel-  
Palmetto Castle

ing. Combining running with weightlifting and eating the right foods, I was able to lose all the baby weight. I have cut out all refined sugar and processed foods and only eat lean meats, healthy fats, fruits, vegetables and complex carbs, such as brown rice or sweet potatoes. I have passed on these healthy eating habits to my children, who often snack only on bananas, hard-boiled eggs and nuts, and they think pretzels are a big treat.

To maintain my weight loss, I still run regularly and lift weights, but I have found that nothing makes me feel better than sticking to my new way of eating.

Courtney Stevens, biologist with the Regulatory Division, shares a similar story to me in that her weight gain was also baby weight. However, that is where the similarities end. Stevens only gained 40 pounds and was active the majority of her pregnancy. Her vice was eating; everyday she ate a Sonic hamburger, fries and an ice cream cone and had a Starbucks Frappuccino with extra chocolate chips. Once her daughter was born in May 2013, she started working out regularly, but was still eating terribly. She found that while she wasn't gaining weight, she also wasn't losing any weight. In March 2014, she decided it was time to get serious about losing the rest of the baby weight. She started to eat better foods instead of empty calories and continued her workouts, and slowly but surely she lost weight. In September, she did a workout and cleanse program where she really learned how to eat clean and what portions are appropriate for her and was able to lose the rest of the baby weight.

"Now I eat to fuel my body instead of eating just to eat,"

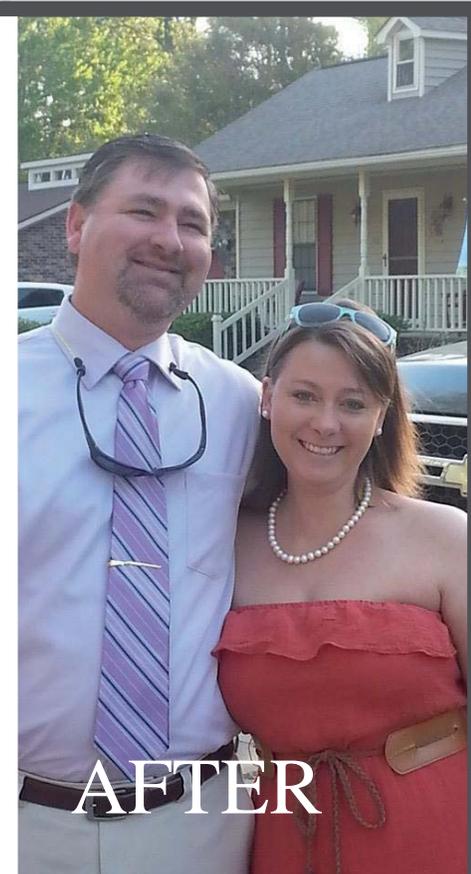


said Stevens. "I feel strong and healthy and I have learned how to sustain this lifestyle for the long term. I want my daughter to know that being healthy and happy is what's most important and I can set that example for her."

Alisha Timmons, biologist in the Planning Division, experienced a different situation. Hers began a few years after she graduated from college when she realized that she was at the heaviest weight she had ever been and that she needed to do something about it. Since Timmons doesn't like to exercise, she had to completely change her eating habits. Her first step was to eat a lighter dinner, either a soup or salad, while eating her bigger meals earlier in the day and snacking on carrots, grapes and cucumbers throughout the day. It took her most of 2011, but she lost the 30 pounds she had gained. Over the next few years, the weight started to creep back on and in 2014 Timmons decided to make permanent changes. This time she started by participating in a cleanse, which gave her the jumpstart she needed. She continues to eat vegetables and small snacks throughout the day and eats lean meats and vegetables for dinner. While Timmons is still not a big fan of exercise, she realizes it's a necessity and enjoys walking and the Wii Fit to keep her active.

"I feel much better about myself and it has been very rewarding seeing the weight continually go down," said Timmons.

Weight loss is a journey, one that requires preparation, dedication and perseverance, but anyone can do it.



# PRIME POWER



Article and photo by Sean McBride

A Thursday morning in September is like most weekday mornings at Williamsburg County Magnet School of the Arts. A class of elementary school students is in the gym doing stretches and playing games with foam balls and plastic cones. But on this particular day, men wearing U.S. Army uniforms, reflective vests and hard hats are also entering the gym.

This particular group is made up of members of the 249th Engineer Battalion (Prime Power) from Fort Bragg, N.C., and the Charleston District's Emergency Management Division. This school is just one of 182 sites throughout South Carolina that are being inspected in a week by the 249th that have been designated as places of assistance during emergencies or natural disasters.

On this morning, the 249th is inspecting a school that could be used as a shelter if an emergency or natural disaster came through the area. During their inspections, they check the electrical capabilities of the facility in order to know exactly what capacity of generator would be needed if the facility lost power. That way, the appropriate generator can be brought immediately following a disaster instead of having to conduct an inspection in the middle of the relief effort. This gets the essential facility back up and running quicker so that it can function in its designated critical role.

"We help states with pre-disaster response, but this was also training for us for our role in the National Response Framework," said Sgt. 1st Class Sean Martin of the 249th.

Palmetto Castle

"Our unit has teams ready to respond within two hours of a disaster notification, so this keeps us up on our training."

The 249th does work for all Corps districts and has responded to tsunamis, earthquakes, ice storms, hurricanes and more around the world and even responded to New York City and Washington, D.C., after the September 11th attacks. Bravo Company 249th is regionally aligned with the Corps' South Atlantic Division and is working to build partnerships with SAD districts, such as Charleston, before a disaster strikes.

Teaming up with the 249th is just one of the many ways the Charleston District remains vigilant throughout hurricane season. By conducting these inspections early, and doing other preparation activities such as mock hurricane exercises throughout the state, District personnel are ready and capable of responding immediately in case of a disaster.

"The 249th is one of the principle proponents for providing emergency power, which is a typical mission we receive from FEMA for emergency response," said Gilbert Dent, Charleston District chief of emergency management. "This effort of pre-assessments will allow us to more-expeditiously provide power to facilities and gives us a heads up to execute the mission if we are called upon."

Other facilities being inspected by the 249th include schools, hospitals, water treatment facilities, fire stations and other sites designated by local governments as critical public facilities.

# Species Spotlight: American Eel

By Joe Moran, fish biologist

There are approximately 800 species of eels worldwide. The American eel (*Anguilla rostrata*) is common in South Carolina and found at the Cooper River Rediversion Project at St. Stephen. The life history of American eel and their European counterparts is not completely understood, but what is known about their spawning migration is quite astounding. Eels have long been considered a delicacy in Asian and European cultures, and due to harvest and a number of other factors, their populations are declining.

Many species of fish, such as salmon and shad, are anadromous, meaning they live their adult lives in saltwater and move into freshwater to spawn. The members of the genus *Anguilla* are the most well-known of the catadromous species, fish that grow to adults in freshwater and move into saltwater to spawn. Every mature American and European eel migrates to the Sargasso Sea to spawn... one area for all of them. For those from Europe, that can be a 3,700 mile trip!

The eel lifecycle is a series of changes, or metamorphoses. The first life stage is known as a leptocephalus, which is a clear, ribbon-like form. Leptocephali may remain in that stage for a couple of years as the currents move them up the Atlantic coast and, in the case of the European eel, around to the eastern Atlantic. When they begin to move into freshwater rivers and streams, they become 'glass eels,' which look like very small versions of adults, but with no color. This life stage moves up into freshwater to grow and mature, often encountering dams, culverts, and other man-made structures that impede their path. Glass eels can scale vertical walls and climb over rocks, as long as there is a tiny trickle of water.

Eels are called 'elvers' when they begin to gain their pigment, or color. From elvers, they transform into the yellow eel life stage, which is the sexually immature adult stage. The yellow eel stage may last up to 15 years. At the completion

of their maturation process, yellow eel metamorphose into silver eel and they return to the Sargasso Sea to spawn. A benchmark stock assessment by the Atlantic States Marine Fisheries Commission in 2012 found "...the American eel population is depleted in U.S. waters. The stock is at or near historically low levels due to a combination of historical overfishing, habitat loss, food web alterations, predation, turbine mortality, environmental changes, toxins and contaminants, and disease." The US Fish and Wildlife Service is currently reviewing a petition to protect the species under the Endangered Species Act.

At St. Stephen, biologists from the South Carolina Department of Natural Resources have been collecting elvers since 2003, using a simple 'eel ramp.' The aluminum frame extends from well-above the top of the high water level to a sill which supports the fishlift wingwalls. The bottom of the two-foot-wide tray is covered with a material that provides a climbing surface for the glass eels. A small pump provides a small flow of water. Even when the turbines are not operating and the water level is low in the tailrace, glass eels swim up that small flow out of the canal and 'climb the ramp' to the collection area. SCDNR biologists check the ladder daily from February – May and every other day throughout the remainder of the year. Captured eels are measured, weighed, and released into the intake canal where they move into the lake system to mature. Some are tagged to monitor movement and growth patterns.

Through the Cooper River Rediversion Project, the Charleston District and the SCDNR are doing their part to help these tiny animals move around the dam to grow into adults. The general public is invited to visit the Cooper River Rediversion Project to see the eel ladder and the Visitor Center where, during the spring fish migration, thousands of American shad and blueback herring may be seen passing through the fishlift.

# Taking Permitting to New Heights

By Sean McBride

A dozen jumbo jets lined up wing to wing. Massive hangars wide enough for two of them to roll through side-by-side. Thousands of parking spaces. A few cans of paint... well, sort of.

These were some of the visions of Boeing South Carolina when they applied for a Department of the Army permit to expand their footprint at their existing aerospace manufacturing and assembly facility in North Charleston.

The history of permitting decisions at this facility goes back to before Boeing was

“The proposed project is different from any other project that I have worked on at the Corps” said Nat Ball, project manager. “There is a runway that directly connects the site to the existing runways at Charleston International Airport. As a result, opportunities to avoid and minimize potential impacts to waters of the U.S. are limited.”

Shortly after receiving the permit application, the District issued a public notice to receive comments. The majority of the written comments that were received focused on the positive economic impact of Boeing within the region

and the overall benefits that the proposed compensatory mitigation plan would have on the Cooper River watershed.

even in town.

In 2005, the Charleston District issued

a permit to Vought Aircraft Industries, Inc. to construct an aerospace manufacturing and integration facility adjacent to Charleston International Airport. This facility was one part of a global assembly line that includes Boeing’s Dreamlifter, a modified 747 that was designed to transport aircraft parts around the globe.

The proposed mitigation plan to offset the adverse impacts to waters of the United States, included the purchase of more than 3,900 acres of land, conducting the necessary restoration and enhancement, and, eventually, transferring the property to the U.S. Forest Service and/or the South Carolina Department of Natural Resources for long-term management and stewardship.

“The goal of mitigation is to improve and maintain aquatic resource functions in the same watershed as the impacts from the project,” said Ball. “One of the properties they were able to acquire and protect was the U.S. Forest Service’s number one priority project east of the Mississippi River.”

Boeing purchased the facility from Vought in 2009, and modified the DA permit to allow for the development of a second aircraft assembly plant. Approximately 30 percent of 787 Dreamliners are now assembled in the North Charleston facility, which has grown to more than 7,000 employees.

In July 2014, the District issued a Department of the Army permit for Boeing’s proposed expansion project and work has already begun on a paint hangar that can accommodate two fully assembled aircraft at the same time. Right now, when a plane is completed, Boeing must fly the plane to another facility for painting. This new building will allow them to complete the entire project in North Charleston.

In March 2013, Boeing met with the District to discuss their short- and long-term plans to expand the facility. Additional land and facilities were required to meet both the existing and projected future demand for the 787 Dreamliner. Since the majority of the land that surrounds the existing facility consists of wetlands, Boeing would require a DA permit from the District to impact them. Boeing submitted a permit application in December 2013, which proposed impacting approximately 153 acres of wetlands and other waters of the United States.

The District is continuing to work with Boeing and state and local agencies to ensure that future phases of the proposed project are designed and constructed to avoid and minimize potential impacts to storm water and nearby residents. Likewise, we are working with Boeing to confirm that the compensatory mitigation plan is both successful and sustainable.

Palmetto Castle

# Making a Strategic Difference

By Sean McBride

For the first time since he took on his role as the USACE Chief of Engineers, Lt. Gen. Thomas P. Bostick inventoried projects on the land and sea in Charleston, South Carolina.

Bostick kicked off 2015 South Atlantic Division concluding his trip in Bostick is making visiting all of the districts to see for the work that is done and he re-whirlwind of excitement in the Lowcountry.

Addressing more than 125

with a visit to two division districts, Charleston. a point of USACE himself being received a experiences try.

than



Charleston District employees, Bostick began his visit with an internal “town hall” discussion where he touched on the major issues facing USACE and discussing his leadership goals. Bostick explained that he wanted to develop a long-term change in the way the Corps is run, even after he leaves, including issues such as future personnel.

“Recruiting and retaining the best people is the most crucial thing to mission success,” said Bostick. “Succession planning for future talent, including STEM outreach, is extremely important to the nation.”

A five minute car ride took Bostick to visit the Ralph H. Johnson VA Medical Center, where he received a tour of the recently-completed Mental Health Research Facility. The \$8.5 million, 16,000 square foot structure hosts labs and clinical space to speed treatment discoveries for our nation’s heroes. When Bostick awoke that day, he didn’t realize he would be medically examined, but an electrode test to show his emotional state allowed him to really see what happens inside the facility.

Finally, a harbor tour on a cold, but sunny, afternoon concluded the trip to Charleston. Here, Bostick met with representatives from the South Carolina State Ports Authority to discuss the Post 45 harbor deepening project. Getting his first look at one of President Obama’s “We Can’t Wait” initiative projects, Bostick came face to face with massive container ships, allowing him a unique perspective on the industry.

Summarizing his thoughts on the trip in a report to USACE leadership, Bostick wrote, “This past week, I visited with the Mobile and Charleston Districts... both are doing great work locally and for the nation...very proud of both teams. In both organizations I saw important work accomplished locally, but that is making a strategic difference. From the Deep Draft Navigation Center in Mobile to the outstanding VA medical facility constructed by Charleston, local teams are making a difference for the Corps and the nation.”

# Meet our new employees:



**Shelia Sollis, 843-329-8121**

**Shelia.R.Sollis@usace.army.mil**

**What is your position?**

*Chief, Safety and Occupational Health*

**Describe your job.**

*As the Chief of Safety, it is my responsibility to ensure we, as a district, work together building the best safety program feasible. I mentor our future leaders, engineers, administrative and operations staff on the latest state of the safety equipment and safer means to complete a project. My goal*

*is to send our employees, contractors and all others who work along beside USACE home safely and uninjured to their families and friends each and every day. I provide training and the tools necessary to build a strong safety culture. I build the safety partnership with our contractors, assisting and mentoring because, if they are successful, we are successful. Above all, I take care of our Charleston District team in regards to their safety at work and at home.*

**What is the most rewarding part of your job?**

*Mentoring a team that is hard at work building tomorrow's future, while ensuring we think out of the box when it comes to safety. In my short time at Charleston, I have recognized many who always place safety in the forefront of all they do, protecting their co-workers and our partners. When I see this, I know I am doing my job. And, that is reward enough!*



**Tim Fudge, 843-329-8049**

**Timothy.C.Fudge@usace.army.mil**

**What is your position?**

*Chief, Operations Division*

**Describe your job.**

*I am responsible for the navigation mission that supports hydropower and fishlift operation and maintenance at the St. Stephen Powerhouse, as well as maintenance of the Atlantic Intracoastal Waterway and Charleston Harbor. The operations*

*program is accomplished through four branches: Navigation Branch, Survey Section, GIS Branch and the St. Stephen Powerhouse which all work together to provide safe and navigable waterways to the public.*

**What goals do you hope to accomplish in your new position?**

*My goal is to continue successful maintenance of Charleston Harbor and our other navigation projects. I am excited about our new Geospatial Branch and am looking forward to growing the program in support of external customers, further showcasing the excellent products and capabilities that are generated by our team. I am also seeking opportunities to utilize alternate materials that resist corrosion and that can support project operations at St. Stephen and reduce overall required maintenance. I am excited about the potential that our highly capable Operations team brings to the table and recognize that the possibilities are endless for our program.*

# RESILIENCY

## HUNT THE GOOD STUFF

By Narissia Skinner, Family Readiness Coordinator

Have you ever had one of those bad days that somehow downwardly spiraled into a bad week? We don't have to look for bad things to happen, they just will. Since we all will face challenging times at some point, I am glad that I attended the Master Resilience Trainer (MRT) course. The 10-day MRT course is the foundation for teaching resilience skills to both Soldiers and civilians. The curriculum is based on materials developed by the University of Pennsylvania's Penn Resilience Program.

Master Resilience Training has equipped me to utilize the tools that I've learned to be resilient in the face of adversity. Resilience is built on the foundation of six competencies (self-awareness, self-regulation, optimism, mental agility, strengths of character and connection) using fourteen skills. One of those fourteen skills is being able to capture the good things that happen to you each and every day. It's called "*Hunt the Good Stuff*." It's a way to counter the negativity bias that most of us have a propensity to lean on.

When you hunt the good stuff, you write down three good things that happened to you today and reflect back on those things. While reflecting, focus on what this good thing means to you. When you do this on a regular basis, it forces you to notice and analyze what is good versus what is negative. Hunting the good stuff helps to reinforce the positive in our lives.

The benefits of hunting the good stuff are definitely reason enough to put this skill into practice. Hunting the good stuff promotes better sleep quality, better relationships, better health, feelings of calmness, lower depression, increased optimal performance, and fostering appreciation of the little things. When your day is done, I urge you to take time to reflect and jot down or discuss the good stuff of the day. Our lives can get a little hectic at times and we can become so busy that everyday memories and moments can be lost. Hunting the good stuff is something that you can share with your family. Make it part of your evening routine at home during dinner, for everyone to share their good stuff.

As you hunt for the eggs the bunny has left behind in the Lowcountry, hunting the good stuff should be quite easy. So I challenge each of you to try it. At the end of your day, recall and write down three good things that happened to you today and share it, along with your reflection of those good things. I promise that it will enhance your outlook and definitely increase your resilience and promote optimism.

What happened that was good to you today?

Happy hunting!

# What's the Point?

By Sean McBride

Car maintenance, home maintenance and computer maintenance; all of these are necessary tasks to keep things running properly. Federal agencies also have to do preventive maintenance to ensure they can successfully complete their missions.

Preventive maintenance isn't meant to be a line of work that gets a lot of visibility. It's meant to stop problems before they arise that could cost thousands of dollars in repairs, replacements and time- that's the point.

In support of the Department of Public Works, preventive maintenance is just part of what the Charleston District is doing under a new \$7 million Facility Investment Services contract at Fort Jackson in Columbia, SC. Along with preventive maintenance work, the District is also performing service calls when small things break in any of 68 specified buildings, such as door handles, pumps, showers, toilets or ceiling tiles. The District can also perform some bigger repairs that take an extended period of time, such as replacing an HVAC system.

"Our guys are committed to answering service calls at any hour," said Max Carroll, project manager. "This is great work because it is meaningful, behind-the-scenes work that gets a lot of necessary things done and enables other people to do their jobs efficiently."

The Fort Jackson Department of Public Works asked the District to perform the work for the 68 buildings, totaling approximately 4.6 million square feet. Most of these buildings were ones that the District either built new or renovated within the last 10-15 years, so District personnel know which areas of a building are served by different pieces of equipment.

"We were heavily-involved in the design, construction and final commissioning of many of these buildings, so we know how they were intended to perform," said Cole Gatewood, mechanical engineer. "That familiarity saves lots of hours of troubleshooting when a system goes down. The efforts we put in translate into improved quality of life for our Soldiers and increased longevity of the facilities."

The District has worked with the DPW on many occasions since beginning work at Fort Jackson in 2008, and they knew about the preventive maintenance work the District has done with other agencies, such as the Army Reserve's 81st Regional Support Command and the Marine Forces Reserve.

"This is a different arena for us," said Carroll. "Previously, we have done preventive maintenance mostly on military reserve buildings, which are only occupied sporadically. Fort Jackson is a full-time operating post."

Since the contract began in October 2014, the District has completed more than 1,500 service calls, performed preventive maintenance on more than 1,000 pieces of equipment, and completed seven large repairs. This work allows our engineers to provide engineering services to the installation while also maintaining our technical competency in facility engineering. With limited funding for military construction projects around the country, this contract allows the District to focus on supporting customers at their request with their priority critical maintenance needs.

The Charleston District is working closely with the DPW to ensure that priority tasks are carried out with an appropriate sense of urgency throughout the whole team to guarantee a successful mission.



## A Different Type of Maintenance

Fort Jackson isn't the only project that the District provides preventative maintenance for. Each spring the S.V. Evans receives a routine annual maintenance, which includes engine repairs, painting the haul and power washing. This year the Evans also received a de-humidification system that will prevent rust and a boat surveyor went through all the systems which should prevent any major issues from arising.

Now that the preventative maintenance on the Evans is completed, she's ready to get back in the water to work.

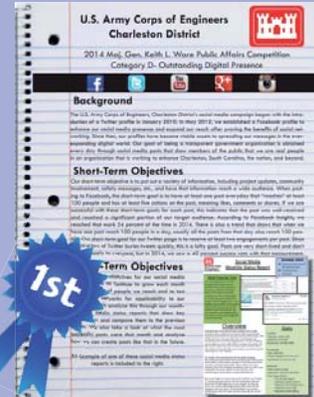
# The Herbert A. Kassner Awards

The Charleston District is proud to announce that our Corporate Communications Office won four first place awards and one honorable mention award for the 2014 U.S. Army Corps of Engineers' Herbert A. Kassner Awards. The Kassner Awards recognize military and civilian employees in the public affairs field for their work in print, broadcast and community relations. All first place Kassner winners go on to compete in the U.S. Army's Major General Keith L. Ware Public Affairs Competition where the District was awarded Honorable Mention, which is second place, in the Special Event category. This is a first for the District and quite an accomplishment considering it was all U.S. Army organizations, not just the Corps.

## Print Category

First Place: Photojournalism

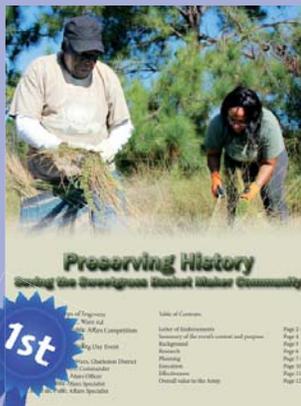
First Place: Outstanding Digital Presence



## Community Relations Category

First Place: Special Event

Honorable Mention: Program



## Broadcast

First Place: Audio Spot Production



# Thai Contingent Visits St. Stephen

By Joe Moran, fishery biologist

Charleston District and South Carolina Department of Natural Resources personnel recently hosted a group of engineers and biologists from Thailand at the Cooper River Rediversion Project in St. Stephen, SC. Across two days, the visitors were provided a behind-the-scenes tour and a detailed explanation of how the St. Stephen fishlift works. The Thai contingent is visiting several fish passage facilities to look for ideas for their own passage activities in Thailand. Their dam and fish passage plans are very similar to the Charleston District's work at St. Stephen and they specifically requested to see the St. Stephen facility. The group was very impressed with the St. Stephen fishlift, its engineering and the volume of fish it passes every season.

The St. Stephen fishlift is unique to South Carolina and is the only one of its type in the southeastern United States. On average, approximately 750,000 American shad and blueback herring pass through annually, which is more than any other passage facility on the Atlantic coast. The general public is encouraged to visit the facility and its visitor center. Visitors can actually watch fish moving through the fishlift on their spring spawning migrations.

During spawning season, Feb. 1 to May 15, self guided tours are available from 10:00 a.m. to 3:00 p.m. Monday through Friday. Guided tours are available every day, including Saturday and Sunday, but must be scheduled through the Dennis Wildlife Center in Bonneau, SC, at 843-825-3387.

