

# Falls City Engineer

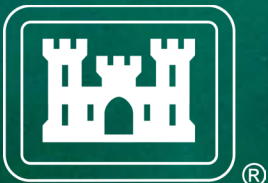
U.S. Army Corps of Engineers Louisville District

November/December 2017

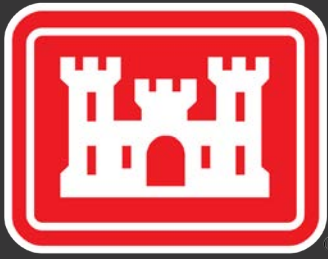
Volume 9, Issue 6

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Recovery efforts  
continue in Puerto  
Rico, USVI







## Falls City Engineer

Vol. 9, Issue 6

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*On the cover: An aerial view of San Juan, Puerto Rico as an employee arrives to assist with hurricane recovery efforts. (USACE photo by Trisha Oakes)*

 **Please conserve:  
Think before you print.**

# Commander's Comments

Happy Holidays,

It's beginning to look like Christmas... everywhere we go! That is one of my favorite songs during the holiday season. Not only is it looking like Christmas but is also looking as if we are fulfilling our goal of closing out the first quarter of the fiscal year strong and building momentum for what is ahead in 2018.

During the past five months as the commander, each time I learn of the support we are providing across the United States and abroad, a twinkle in my eye, like the Jolly Old Saint Nicholas, can be seen. Whether it's our selfless service overseas in Afghanistan/Iraq and the U.S. Virgin Islands and Puerto Rico or the remarkable effort by the operations staff in the district and on site at Locks and Dam 52, or the behind the scene actions of our planning, programs, and project management, engineering, resource management, contracting and construction staffs, there is a reoccurring theme that permeates. Because of this, I have coined the phrase "We are LOUISVILLE PROUD." Please join me in expressing appreciation for our Louisville teammates who are doing remarkable things. Watching the great work is like watching a UofL vs. UK basketball game— Totally Inspiring!

Enjoy this issue of our Falls City Engineer magazine. It is filled with great stories highlighting the works of our emergency operations and the groundbreakings for landmark projects such as the medical clinic at Fort Knox and the Air Reserve Station in Pittsburgh.



**Col. Antoinette Gant**  
*Commander and District Engineer  
Louisville District  
U.S. Army Corps of Engineers*

Finally, I wish each of you a very safe and enjoyable holiday with loved ones. Let's all return rejuvenated and ready to tackle 2018 head on as it brings new challenges and opportunities to our district.

**Building Strong and Taking Care of People! We are LOUISVILLE PROUD!**

Merry Christmas and Happy New Year!

Col. G

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## Corps helps build fish habitat for Cecil M. Harden Lake



Photo courtesy of Indiana DNR

*Volunteers work to construct fish attractors, or artificial habitats, for fish on Cecil M. Harden Lake.*

*Carol Labashosky, public affairs*

In November, rangers from the Middle Area Wabash lake staff assisted in a volunteer effort for the Fish Enhancement Project which the U.S. Army Corps of Engineers Corps lake staff have been participating in since 2016.

The group has created artificial habitat to enhance 22 acres for fish on Cecil M. Harden Lake, Rockville, Indiana. These include porcupine cribs, rock piles and wooden post clusters. These enhancements help to provide areas under water for fish to cluster in a quiet segregated area during winter.

Construction of the fish attractors is a big part of the effort. A fish attractor is made of wood, rock or PVC material. The

current effort is building porcupine cribs which are made of poplar boards. Stacked in a square shape to form a pyramid approximately four feet tall. The structures are then weighed down with cinder blocks and an earth anchor. The design of the structure will only allow fish less than six inches long to get inside, which will provide refuge from larger fish. The design will benefit larger fish by providing shade and structure. These structures will also give recreational fisherman additional areas to target and potentially increase catch rates.

Cecil M. Harden Lake staff have spent over 400 hours assisting with this project in the last year. Project staff have placed 40

one-ton rock piles, cut 2,500 poplar boards for porcupine cribs, separated and bundled the 2" x 2" Poplar boards for transport, transported the boards to five different locations on Harden Lake and assisted in the assembly of the porcupine cribs.

Lake staff will be assisting in the transport of 800 cement blocks to anchor the porcupine cribs and placing the cribs in the lake bed once winter pool is reached. The Corps rangers will also install the one-ton rock piles this winter.

"This office has put an immense amount of time into this project and will continue to do so in the future as the project will provide benefits for many years," said David Cable, area operations manager, Middle Wabash Area.

Participants included are Park Manager Joe Staigl; Harden rangers Dakota Kendall, Jeff Coppinger and maintenance staff Steve Bratcher, Justin Sanders and Lucas Burgess.

"This project has been a great partnering effort that will benefit natural resources for many years. Special thanks to Indiana Department of Fisheries, State Parks, Indiana Bass Federation, Bass Unlimited, multiple local volunteers, and all the vendors who have donated materials for the project. "Without their help this project would not be a success," said Staigl.

When the lake reaches winter pool there will be several additional tasks to complete including locating and attaching these and other fish attractors to the lake bottom.

In the winter of 2019, 20 more rock piles, 40 porcupine cribs, and five large hardwood brush piles will be installed.

## Lt. Governor Hampton visits Olmsted project

Kentucky Lt. Gov. Chief of Staff Steve Knipper (left), Lt. Gov. Jenean Hampton and Deputy Chief Olmsted Division Mick Awbrey discuss the Olmsted Locks and Dam project during a site tour on December 13, 2017.

Her visit was part of a river tour of navigation resources and infrastructure serving the Commonwealth organized by the U.S. Coast Guard. Hampton was impressed with the project, and she reiterated how important it is to Kentucky, the economy and the nation. She also thanked the team for their hard work.

The team also discussed the timeline for the project, which is scheduled to wrap-up in summer 2018.



Mike Braden



# Partnering with the Corps: American Chestnut tree outreach

By Tom Saielli, Mid-Atlantic Regional Science Coordinator, courtesy of The American Chestnut Foundation

The American Chestnut Foundation (TACF) has implemented breeding at more than 500 orchards, demonstration and research plantings, as well as hundreds of ceremonial plantings across the United States. The success of our program is due to partnerships that TACF has created.

The U.S. Army Corps of Engineers (USACE) provides some of the most valuable support with dozens of successful collaborations on plantings and outreach events over the last two decades, with many more in store for the future.

In 2009, the Corps and TACF entered into a Memorandum of Understanding where both parties agreed to coordinate efforts and work cooperatively to restore the American chestnut.

According to Keith Chasteen, USACE Louisville District operations, The American Chestnut Foundation saw value in partnering with the Corps of



This chestnut bur with seven nuts inside is from a backcross 15/16ths American chestnut and 1/16th Chinese chestnut.



Kevin Wright

American Chestnut tree at Carr Creek Lake in Sassafras, Kentucky.

Engineers, as there are Corps projects spread throughout a variety of ecosystems across the chestnut range. This provides a great opportunity to get trees growing across different regions and within different population areas. With the many demo plantings now in place at Corps visitor centers and office locations, there are opportunities for millions of people to learn about the American chestnut and its restoration.

“The Corps rangers are able to use the chestnut plantings as a focus for interpretive talks, which helps to tell the story of the chestnut tree even more. It is a win-win partnership for both organizations,” Chasteen said.

With their skills, experience, and resources, USACE has been a strong and reliable partner in the effort to restore American chestnuts. They have helped bring awareness to our program throughout the eastern United States, through research projects, demonstration plantings and more.

Successful projects include:

Carr Creek Lake, Sassafras, Ky. – USACE has been a reliable partner in the

establishment of breeding orchards, like Carr Creek Lake. In 2014, a wild American chestnut tree was found in the tail water area below USACE’s on-site office. Some canopy opening was performed around the tree in 2015, and the first male and female flowers were identified in 2017.

Important Demonstration Plantings – The partnership between TACF and USACE has also provided opportunities to establish pure American orchards like the demonstration and breeding, plantings at Caesar Creek Lake, Waynesville, Ohio. Other notable demonstration plantings include chestnut trees planted on Corps property along the Green River in Kentucky. “Demonstration plantings have been established at nearly every Corps Lake within Kentucky. That is a grand accomplishment,” Chasteen said.

All of the above projects offer a glimpse into the many ways that TACF and USACE have worked together. There is great history and a promising future – something that is worth appreciating.

For more information or to become a member: <http://www.acf.org>

## Why American Chestnuts?

The American chestnut tree was an essential component of the entire eastern U.S. ecosystem. A late-flowering, reliable, and productive tree, unaffected by seasonal frosts, it was the single most important food source for a wide variety of wildlife from bears to birds. Rural communities depended upon the annual nut harvest as a cash crop to feed livestock. The chestnut lumber industry was a major sector of rural economies. Chestnut wood is straight-grained and easily worked, lightweight and highly rot-resistant, making it ideal for fence posts, railroad ties, barn beams and home construction, as well as for fine furniture and musical instruments.

Source: TACF



# Ireland Army Health Clinic breaks ground

Katie Newton, public affairs

U.S. Army Corps of Engineers Louisville District Commander Col. Antoinette Gant participated in a groundbreaking ceremony Nov. 9 for the Ireland Army Health Clinic Replacement Facility Project at Fort Knox, Kentucky.

The new \$80 million clinic will provide Fort Knox with a state-of-the-art facility to provide patient and family-centered care to its patients. The medical clinic replacement facility will include primary and specialty care, behavioral health, ancillary services and administrative support activities.

The Corps' construction contractor, Mortenson Construction Company out of Minneapolis along with their design firm, CallisonRTKL, out of Baltimore teamed up to tackle the two-story, 101,373 square-foot facility.

"Mortenson Construction Company and the entire project delivery team is working together to deliver the project," said Steve Farkus, U.S. Army Corps of Engineers Louisville District Project Manager. "The contractor is fully mobilized on site, with clearing and earthwork now underway."

"Our project will enable the history of expert medical care at Ireland Hospital to continue for years to come," he continued. "We are honored to be involved in a project that serves Soldiers and their families."

The clinic is scheduled to open to patients in 2020 after which the existing Ireland Army Community Hospital, which serves the present Fort Knox community, will be demolished.



Steve Farkus

On Nov. 9, 2017, Louisville District Commander Col. Antoinette Gant (second from left) joined other officials in a groundbreaking ceremony for the new Ireland Army Health Clinic at Fort Knox, Kentucky.



USACE Rendering



USACE Rendering

Exterior and interior renderings show what the new Health Clinic will look like upon completion in 2020.



# Emergency Operations

## Recovery efforts continue in Puerto Rico, USVI

The Louisville District continues to support hurricane recovery efforts in the Caribbean with 50 employees deployed and 17 more leaving soon.

Twenty-nine employees are currently serving in the U.S. Virgin Islands managing the debris mission there while another 21 employees are stationed in Puerto Rico helping to restore power to the island as part of Task Force Power Restoration.

Louisville District employees have been working around the clock — some for 45 day deployments or longer — since Hurricanes Irma and Maria devastated the islands in September.

The Louisville District is leading the debris planning and response team effort where debris removal on St. Thomas and St. John in the U.S. Virgin Islands has recently picked up speed with help of self-loading debris trucks. As of Dec. 15, more than 42,000 of 76,000 cubic yards of hurricane debris had been picked up and taken to debris management sites on St. Thomas. Across the islands, more than 390,000 of an estimated 850,000 cubic yards of debris has been picked up.

Value Engineering Officer, Corey White, who returned to the district in November, said his efforts with the debris team were rewarding.

“Seeing the recovery happen right before your eyes is an awesome thing to experience,” said White. “This deployment was something that will stick with me forever. I definitely intend to deploy again someday.”

Eric Cheng, environmental engineer, echoed that sentiment in an interview with



Dr. Michael Izard-Carroll

*Damaged power lines along a road in Humacao, Puerto Rico, show some of the damage in one of the hardest hit municipalities after Hurricane Maria on Oct. 28, 2017.*

a local news affiliate saying the time away is well worth it to see progress being made.

“Seeing the kids go back to school was a landmark moment in this recovery effort,” Cheng said.

In Puerto Rico, district employees are working to turn the lights back on for residents as part of Task Force Power Restoration. As of Dec. 14, 70 percent of generator installs were completed across the island to provide temporary power and work continues on the power grid, which was severely damaged. Almost 10,000 steel, wood and concrete power and

distribution poles have been delivered to Puerto Rico for installation.

Despite the holidays, hard-working Louisville District employees will continue to work long days away from home. In support, the district office has shipped care packages and a video message to remind employees how much they are missed.

“We want to thank you for your selfless service being away from your loved ones at the holidays,” Emergency Operations chief Chuck Oliver said in the holiday greeting to deployees. “We appreciate your support.”



San Luciano Vera

*USACE officials oversee delivery of 894 steel, wood and concrete power and distribution poles, which were disseminated to sites throughout the island of Puerto Rico for installation.*



USACE

*Puerto Rico Task Force Power Restoration leadership (left to right) Col. John Lloyd, Commander; Linda Murphy, Deputy District Engineer; Marjorie McDonald, Chief, Safety and Occupational Health; and Philip Tilly, Chief of Operations serve Thanksgiving dinner to deployees Nov. 23.*



US Army Corps  
of Engineers®

# HURRICANE IRMA & MARIA RESPONSE

Updated as of 14 DEC 17

MISSION ASSIGNMENTS / CUMULATIVE COST / PERSONNEL ON GROUND



mission assignments issued by FEMA 27 / \$2.4 billion / 691

mission assignments issued by FEMA 24 / \$201 million / 116

## TEMPORARY ROOFING



29%

75,000 roofs estimated for repair

21,259 blue roof installs completed out of 72,359 requested



100%

3,670 roofs estimated for repair

3,664 blue roof installs completed out of 3,665 requested

## TEMPORARY EMERGENCY POWER



70%

889 generator installs completed out of 1267 intalls requested



98%

173 generator installs completed out of 176 installs requested

## DEBRIS MANAGEMENT



32%

49 municipalities requested assistance, currently working in 43

1.17M cubic yards removed out of 3.7 million assigned



46%

851,000 cubic yards estimated for removal

393K cubic yards removed

## PUERTO RICO POWER GRID REPAIR

63.5%

of instant max load out of historic average load

instant max demand: 1600 MW  
pre-storm avg monthly load: 2500-3000 MW



82.7% functioning



342 substations

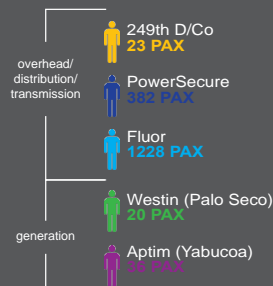
71.4% functioning



56 transmission centers

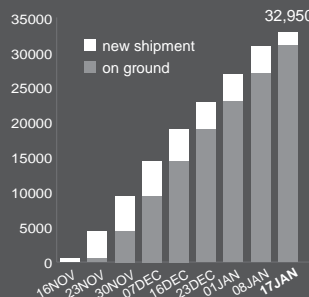
\* Puerto Rico Electric Power Authority and USACE recently recalibrated its reporting of the above percentage, accounting for recent disparities.

## CONTRACTED personnel on ground



1,689 TOTAL

## POWER POLES



## Palo Seco

2 x 30MW generators installed producing 50MW and providing grid stabilization

## Yabucoa

25MW generator installed to provide power to region. Online as of 09DEC; increasing power incrementally

USACE Public Affairs  
hq-publicaffairs@usace.army.mil

<https://www.facebook.com/USACEHQ/>

\* percentages may remain unchanged for periods of time as requests and installs completed can increase concurrently



# USACE IA team inspires young interpreter's career plans

Elizabeth Lockyear, Albuquerque  
District Public Affairs

After Hurricane Maria, the U.S. Army Corps of Engineers was tasked to assist with inspecting and evaluating the damage to schools across Puerto Rico. While inspecting a school in Coamo in the southern part of the island, the Infrastructure Assessment (IA) team left a lasting impression on one particular student.

Daily, IA teams would spread out across Puerto Rico with a list of schools to assess. Upon reaching a campus, the inspectors would speak with a school representative to get a sense of the amount and type of damage at the facility. Sometimes there was no interpreter, so the team had to improvise to get the information needed.

When infrastructure assessment inspection team leaders Rob Bolduc,



Rob Bolduc, right, IA team leader from the Louisville District, and Ed Davis, IA mission data manager from the Charleston District, begin their infrastructure assessment with the faculty at Escuela Nemesio R. Canales in Jayuya, Puerto Rico, Nov. 27.

U.S. Army photo by Patrick Loch



USACE infrastructure assessment inspection team leader James Scungio, left, with Angel Emanuel Martinez Mateo, a student at the Benigna L. Caratini School. Mateo interpreted for Scungio's IA team when they visited the school to assess the damage to the facility from Hurricane Maria, Nov. 22, 2017. Mateo told Scungio he wants to be an engineer when he grows up.

from the Louisville District, and James Scungio, from the Buffalo District, visited the Benigna L. Caratini elementary school, there was no one available that day who spoke English except for one of the students.

Nine-year-old Angel Emanuel Martinez Mateo joined Bolduc and Scungio on their assessment, interpreting as needed. Mateo "told us he wanted to join us on inspections and help," Scungio said. "He was able to translate all of our questions and verify where all damages occurred."

Without Mateo's help, the team would have had to return to the school at another time. "This was a remote location and a very difficult location to get to because of

the narrow mountain roads and rock slide debris in several road passes," Scungio said. Having Mateo's help on this visit "was very important to complete the inspection."

"Before Rob and I departed, the young man indicated that he wanted to 'be an engineer like you when I get older.' He has the desire and work ethic. He has what it takes," Scungio said.

"We're recruiting them early!" said Bolduc.

Mateo's mother, Marianela Mateo Santiago, expressed her pride in her son. "His mother's only words in English were 'My son is a good student and studies very hard!'" said Scungio.

## Snapshots from the Caribbean



Louisville District contracting team members Denise Bush, Patrick Duggins and Travis Van Ort were recognized by South Atlantic Division Commanding General, Brig. Gen. Diana Holland, for traveling on short notice to Puerto Rico to participate in an Acquisition Summit.



Dan Unger, QA Supervisor and Debris Specialist, was awarded a coin by Brig. Gen. Diana Holland for his outstanding work and correspondence in conjunction with the U.S. Coast Guard, EPA, and other agencies to plan for the handling of marine debris.



Debris Quality Assurance Specialist Justin Bates ensures that only approved white goods get loaded into the debris trucks for disposal Dec. 9 in St. Thomas.

Mike DeRusha



## Reserve

# Air Force Reserve beddown projects turn dirt

Carol Labashosky, public affairs

A groundbreaking ceremony for three U.S. Army Corps of Engineers Louisville projects for an Air Reserve Station (ARS) was held on Nov. 7, 2017, in Pittsburgh. The projects for the Air Force Reserve are a beddown. A beddown is when the Air Force moves planes to a new location.

The project included construction of a two-bay corrosion/fuel hanger, consolidated fuel hydrant/apron and lighting project, and a consolidated hangar renovation project.

Sharon Raque, U.S. Army Corps of Engineers (USACE) Louisville District Chief Reserve Branch, Planning, Programs and Project Management Division took part in the groundbreaking ceremony. The groundbreaking was attended by the installation, Air Force Reserve, USACE, construction contractors, state and federal elected officials and local media. The ceremony consisted of multiple speakers expressing their excitement about the projects as well as the gratitude for those



Sharon Raque, U.S. Army Corps of Engineers Louisville District Chief Reserve Branch, (far left) took part in the groundbreaking ceremony at the Air Reserve Station in Pittsburgh Nov. 7, 2017.

who have made the projects a reality.

“It was clear that these projects are very important to the local community and Pittsburgh ARS,” said Raque. Following

the presentations the ceremonial first shovel of dirt was moved by several of the key personnel.



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# Indian culture goes beyond the myths, stereotypes

Todd Hornback, public affairs

History or myth, authentic or Hollywood, or real or stereotype are some of the questions the speaker alluded to during her presentation on American Indians and the perceptions people have about the Indian culture.

During the Louisville District Equal Employment Opportunities Special Emphasis Program Nov. 28 for National American Indian Heritage Month, Tressa Brown expanded on “What’s happening today” with American Indian culture.

Brown, the coordinator for the Kentucky Native American Heritage Commission and the Kentucky African American Heritage Commission, has worked for 25 years providing educational programming for schools and the public.

“To support people, you need to know who and where they are,” Brown said, stating that up to 45,000 Indians live in Kentucky and have been a part of the land for approximately 10,000 years.

Her presentation included an Indian history including the perceptions of Indian culture personified through television, print and the internet.

American Indians make cultural impacts on our society today including art and their historical importance of being an originator of growing food for harvest.

Battles continue with perceptions of the Indian culture—for example, the controversial naming of sports teams. Brown added the topic concerns the sensitivity of naming a team the Redskins – “a term given to scalps taken for bounty.”



Tressa Brown, coordinator for the Kentucky Native American Heritage Commission and the Kentucky African American Heritage Commission was the guest speaker at this year's National American Indian Heritage Month observance Nov. 28.

It was not until recent history when American Indians received laws to protect their culture including the 1978 Indian Religious Freedom Act to protect Indians in their use of tools in prayer. The 1978 Indian Arts and Crafts Act, a truth in advertising law, protects Indian art from knockoffs requiring art to be designated authentic or a representation.

In 1990, the Indian Child Welfare Act became law to govern jurisdiction over the removal of Native American children from their families.

Another law in 1990, the Native American Graves Protection and Repatriation Act, aims to protect Native

American gravesites from raiding and other violations.

Although the laws help protect all Native American Indians, they do not reflect the diversity within the Native American culture.

“A lot of people think all Indians are the same,” Brown said. She emphasized her point by clarifying that all Europeans does not describe the diversity within the European cultures.

With each slide and discussion, Brown continued her focus to identify myths about Native Americans and to dispel accepted stereotypes.

## Workforce & Family Support

### Suggestions for a Happy and Healthy Holiday Season

- Check in with your loved ones, friends, and colleagues. If you are away from home, make a plan to celebrate with family and friends once you can all be together.
- Balance your expectations for yourself and others - traditions and expressions of gratitude are different for everyone.
- Create meaningful memories, instead of perfect ones, as they are often the ones we will cherish the most.
- Ensure that you have time alone to take a few breaths to reflect, listen to music, or connect with nature around you, to reduce your stress level.
- Take care of your body - keep your body moving with exercise, dancing, stretching, or walking.

### Resources for Getting Help

USACE Critical Incident Stress Management (CISM) Team has trained peer supporters who can confidentially listen and provide assistance during times of stress or life change, 314-925-5250 (24x7) or email [cism-vm@usace.army.mil](mailto:cism-vm@usace.army.mil) (confidential).

National Suicide Prevention Lifeline: 1-800-273-8255 to speak confidentially with a person trained in suicide prevention (24x7).