

Falls City Engineer

U.S. Army Corps of Engineers Louisville District

September/October 2023

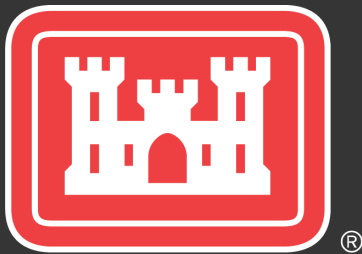
Volume 15, Issue 5

www.lrl.usace.army.mil



Division Commander makes first visit
to the Louisville District





Falls City Engineer

Vol. 15, Issue 5

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Falls City Engineer is an unofficial publication under AR 360-1, published bimonthly for Louisville District employees and members of the public by the U.S. Army Corps of Engineers, CELRL-PA, P.O. Box 59, Louisville, Ky. 40201-0059 under supervision of the Public Affairs Office. Views and opinions expressed are not necessarily those of the Department of the Army or the Corps of Engineers.



On the cover: Great Lakes and Ohio River Division Commander Brig. Gen. Mark C. Quander receives an update on the progress of construction of Van Voorhis Elementary School Sept. 13 in Fort Knox, Kentucky.

Commander's Comments

Team Louisville,

Congratulations to the Louisville District for successfully closing out another fiscal year (FY)! I am in awe at this team's determination to fight through challenges to deliver our historic program. It is an honor to be a part of this proactive team and I am incredibly proud of the work that has been accomplished.

By many metrics, FY23 was a banner year for the Louisville District. As we closed out FY23, our district obligated more than \$1.15 billion in program dollars. The contracting team executed 2,271 actions and obligated more than \$1 billion again, a figure that ranks our district third in number of actions and seventh highest in total obligations across the enterprise. Building upon the annual awards ceremony, I want to again extend congratulations to all the employees who received national, regional and district level awards.

Please enjoy the September/October issue of the Falls City Engineer where we highlight several of our people and projects to include: The Louisville Veterans Affairs Medical Center bottoming out milestone, Brig. Gen. Mark C. Quander's first visit to the Louisville District, the Green River Basin Sustainability Rivers Program, our continued work with the STEAM Program, a highlight of a POW's remains making their way back home...and more!

As we begin FY24, I want to thank everyone for their continued dedication to the district's mission. I would also like to start the new fiscal year off by a renewed commitment to SAFETY. Our Chief's intent is to establish more presence and more deliberate focus on safety at every project and at every facility/site. We must



Col. L. Reyn Mann
Commander and District Engineer
Louisville District
U.S. Army Corps of Engineers

all work to identify and mitigate hazards so that every single teammate—USACE or contractor—comes home safely from work every day. This culture of safety starts with YOU.

I am very proud of our Louisville team and can't wait to see what the district does in FY24 across the region and the nation to deliver for our partners and stakeholders.

Building Strong... Together!
LOUISVILLE PROUD!
Col. L. Reyn Mann

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Louisville District, Regional Repair Fleet partnership revolutionizes Ohio River infrastructure maintenance

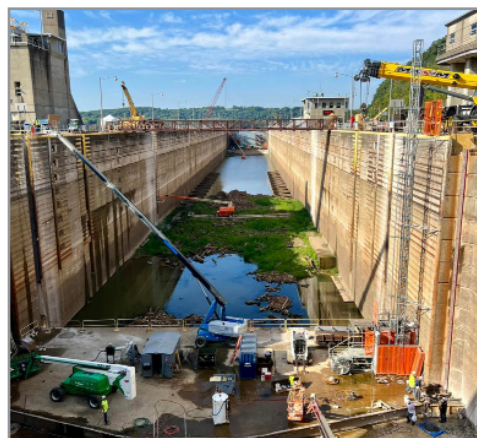
Abby Korfhage, public affairs

The U.S. Army Corps of Engineers Louisville District works in partnership with The Great Lakes and Ohio River Division's Regional Rivers Repair Fleet, also known as R3F, on major maintenance and repair efforts for the district's locks and dams on the Ohio and Green River and for the district's 17 Flood Risk Management Dams across Kentucky, Indiana and Ohio.

"Louisville District's partnership with the Regional Rivers Repair Fleet is vital to the reliability, resiliency and efficiency of the district's navigation and flood risk management infrastructure," said Shawn Kenney Louisville District Operations Division Technical Support Branch chief. "Our goal is to ensure reliability of our system through proactive maintenance and repairs before deficiencies have operational impacts. With aging and deteriorating infrastructure and resource constraints, there is a trend toward a fix-as-fails maintenance strategy."

The Louisville District and R3F have been working together for years to improve maintenance processes.

"R3F is the preferred resource provider for performing much of this major maintenance work on our infrastructure because the in-house capabilities provide seasoned expertise with the unique work and flexibility if differing site conditions are found once construction is in-progress," Kenney said. "The adaptability of R3F provides an enhanced level of risk management that would not be possible if all major maintenance work was contracted out."



The Regional Rivers Repair Fleet's (R3F) heavy capacity fleet works in the dewatered primary chamber at Cannelton Locks and Dam on the Ohio River in Cannelton, Indiana, Sept. 20, 2022.



Great Lakes and Ohio River Division Commander Brig. Gen. Mark C. Quander visits John T. Meyers Locks and Dam in Mt. Vernon, Indiana, Sept. 12, 2023, to receive an update on the miter gate replacement project.

Having the ability to mobilize in-house fleets improves the resiliency to restore infrastructure to service quickly in the event of an emergency, Kenney added.

R3F was formed in 2016 when individual river district repair fleets previously located in Louisville, Huntington, Pittsburgh and Nashville were consolidated. This standardized core work and fleet management, safety risk management, equipment maintenance, training and staffing.

More recently, the Heavy Capacity Fleet of the RF3 completed miter gate replacements at McAlpine Locks and Dam in Louisville, Kentucky, and Cannelton Locks and Dam in Cannelton, Indiana, to increase reliability and efficiency on the inland waterways system. The Louisville District and R3F's initiative consolidated this work from two seasons to one, minimizing the time the lock chamber had to be shut down greatly reducing impacts to industry.

"Completing this dual miter gate change out and floating mooring bitt replacements, in one low water season rather than two, reduced industry impacts by over four months in 2022, and allowed for project cost savings of over \$10 million," said Waylon Humphrey Louisville District Operations Division chief. "Most importantly, now that Louisville and R3F have demonstrated this is possible at McAlpine, and repeatable at Cannelton, we have laid the groundwork for the miter gate replacement program timeline to be cut in half."

The Louisville District and R3F have been paving the way driving toward greater

efficiencies with the fleets, according to Kenney.

"The team is pushing the envelope on efficiency and proving successful through diligent planning, aggressive scheduling practices, and proactive risk management," Kenney said. "The prime examples of this include projects at McAlpine Lock and Dam in 2020 and Cannelton Locks and Dam in 2022, which set a new standard for completing miter gate replacements on both ends of a lock chamber in a single year."

These projects successfully reduced the timeframe from two five-month closures over two years to a single five-month closure and reduced the budget from \$47 million to \$37 million.

"These efficiencies allow USACE to move on to the next critical needs on the long list of backlogged maintenance," Kenney said. "Also, the reduced closure times benefits navigation industry and its customers to the tune of millions of dollars."

The R3F team is currently working with the Louisville District at John T. Myers Locks and Dam in Mt. Vernon, Indiana, to rehab the miter gates in the 1,200-foot lock chamber.

"At John T. Myers Locks and Dam, the Heavy Capacity Fleet is attempting to reduce the scope of work from 18 weeks, which was the duration the last time a similar project was performed, to 10 weeks," Kenney said. "This Louisville District and R3F team realizes that pushing ourselves outside our comfort zone is prudent and rewarding; we are embracing the notion that we were not made for comfort, but for greatness."

Dam Safety team performs periodic inspections at Green River Lock and Dams No. 1, 2



Louisville District's Kate Brandner and Melanie Babin inspect the surroundings of the lock wall at Green River Lock and Dam No. 1 in Reed, Kentucky, Aug. 16, 2023.

Abby Korfhage, public affairs

The U.S. Army Corps of Engineers Louisville District teammates from Dam Safety, Hydrology & Hydraulics, Navigation, Mechanical and Electrical Sections, along with project personnel, recently performed periodic inspections of Green River Lock and Dams No. 1 and 2, Aug. 14-16, 2023.

All Louisville District dams receive a comprehensive inspection once every five years by an experienced team of engineers and scientists from the district office. Members of the inspection team are knowledgeable in the design, construction and maintenance of the dam. The team inspects all parts of the structure; all gates, valves and operating equipment are inspected and tested.

"The inspection findings and recommendations are documented in a formal report and submitted to USACE offices in Cincinnati, Ohio," Brandner said. "If the inspection team recommends remedial actions, the work is scheduled and completed based on prioritization."

During an inspection, all geotechnical, hydraulic, structural, mechanical and electrical components of the project are inspected and tested to ensure everything is in working order. Findings are then discussed with the team and project staff and recommendations for improvements, if applicable, are provided.

"For the hydrology and hydraulics portion, we time the filling and emptying

of the lock chamber and looking at all the wetted surfaces - upstream, downstream, around the dam - we are looking for anything changing or eroding, all around the project," said Melanie Babin, Louisville District hydrology and hydraulics water manager. "If we see anything unusual, then we have to get as close to it as possible to that area to try to measure it and see how fast the situation is developing."

The original Green River Locks and Dam 1 and 2 facilities were opened for barge traffic in 1840. The existing Locks and Dam 1 and 2 were both authorized as replacements July 29, 1953, by the Secretary of the Army under authority of

Section 6 of the Rivers and Harbors Act approved March 3, 1909. The existing Green River Locks and Dams 1 and 2 began construction in 1954. Locks and Dams No. 2, located in Calhoun, Kentucky, was placed in operation in May 1956, and Locks and Dams No. 1, located in Reed, Kentucky, was placed in operation in June 1956.

"Green River Lock and Dam 1 and 2, as we know them today, have been around since the 1950's. The project staff do a fantastic job of maintaining these aging structures. The team's goal is to provide component specific recommendations to ensure the project will be able to function for another 70 years and beyond, for these and every project in Louisville District's inventory," Brander said. "It also serves as a great way to build relationships between operations and engineering divisions, giving resources for the project to reach out should issues arise."

Just in Fiscal Year 2023, which runs from October 2022 through September 2023, the dam safety team performed seven periodic inspections at Louisville District projects. In addition, annual inspections and comprehensive instrumentation reviews were completed for all flood risk management and navigation projects.

Dam safety professionals carry out the dam safety program to make sure these projects deliver their intended benefits while reducing risks to people, property, and the environment through continuous assessment, communication and management.



Louisville District teammates from Dam Safety, Hydrology & Hydraulics, Structural (Navigation), Mechanical and Electrical Sections, along with project personnel, participated in an Out-briefing for the periodic inspections of Green River Lock and Dams No. 1 and 2 in Reed, Kentucky, Aug. 16, 2023.

USACE hosts workshop to help improve the future of the Green River Basin



Dylan Zinsmeister

The U.S. Army Corps of Engineers Louisville District, along with national, state and local partners came together to discuss environmental opportunities present within the Green River Basin as part of the Green River Basin Sustainable Rivers Program in Mammoth Cave, Kentucky, Aug. 29-31, 2023.

Abby Korfhage, public affairs

The U.S. Army Corps of Engineers Louisville District, along with national, state and local partners came together to discuss environmental opportunities present within the Green River Basin as part of the Green River Basin Sustainable Rivers Program, also known as SRP. The workshop was held at Mammoth Cave National Park in Mammoth Cave, Kentucky, Aug. 29-31.

“The goal of the workshop was to gather our stakeholders together to identify ecosystem problems and opportunities within the basin, including those that could be addressed by the SRP, and to work towards establishing a new ecological baseline condition for the basin,” said Jenny Stromberg, Louisville District project manager.

Participants from USACE Nashville District, St. Paul District, Institute for Water Resources, The Nature Conservancy (TNC), National Park Service, U.S. Fish and Wildlife Service (USFWS), Kentucky Department of Fish and Wildlife Resources, Office of Kentucky Nature Preserves, Kentucky Division of Water, Kentucky Rural Water Association, Western Kentucky University, and others partnered with the Louisville District for the workshop.

The Sustainable Rivers Program is an ongoing nationwide partnership between

USACE and TNC to improve the health and life of rivers in part by changing the operations of USACE dams, while maintaining or enhancing project benefits.

“I thought the workshop went really well,” Stromberg said. “Several people described the discussions and ideas that came out of the workshop as inspirational.”

The three-day event included presentations about the program, the history of the green river basin, USACE capabilities, breakout sessions and field trips.

“My favorite part of the workshop was getting to see the entire three days unfold,” Stromberg said. “It was a humbling experience to be a part of such an outstanding team and seeing firsthand all the hard work, energy, and passion the team and partners invested over this past year to make this workshop possible. Seeing it all come together and the positive response from the participants – it was rewarding to get to see new relationships made and ideas created – all for the future of the Green River Basin.”

The Green River is a 384-mile-long tributary of the Ohio River that rises in Lincoln County in Southcentral Kentucky. With its karstic landforms, the Green River is home to more than 70 species of mussels (21 imperiled, 11 listed) and 152 species

of fish (seven endemic, 12 globally rare), Green River has one of the richest aquatic collections in the nation.

The Commonwealth of Kentucky constructed a series of lock and dams on the Green River to support navigation in the mid-1800's and in the early 1900's. One lock and dam was also constructed on the Barren River in the 1930's. A number of these lock and dams were congressionally deauthorized and have been subsequently removed, or partially removed, through partnerships with USFWS, USACE, Kentucky Waterways Alliance and TNC.

These lock and dam removals allow for improved passage and the restoration of instream habitat for aquatic organisms in the river system. The need for a healthy watershed not only benefits the environment, but also benefits water supply, recreation and tourism, flood risk management and economic development, according to the team.

From this workshop, a final report will be produced to summarize a prioritized list of potential ecosystem projects, resources and studies that would improve the health and sustainability of GRB aquatic ecosystems.

Approximately 60 people participated in the workshop.

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“From initial development to execution, this workshop was an amazing experience. It is incredible to look back and consider how many moving parts and how many partners from all levels and organizations came together to support this effort from across the country,” Stromberg said. “The relationships, partnerships, and ideas that developed out of this will be critical to the future of the Green River Basin. Each partner with their own area of expertise is helping to lay the foundation for the future of the basin right now. We have essentially started creating a central hub of partners, knowledge, and capabilities, that can be utilized as we move forward and continue to define the future of the Green River Basin.”



Louisville District Hydrology and Hydraulic Branch Chief Michael Borchers gives a presentation during the Green River Basin Sustainable Rivers Program workshop, held at Mammoth Cave National Park in Mammoth Cave, Kentucky, Aug. 29-31, 2023.

Dylan Zinsmeister

Military

USACE and Fort Campbell break ground on microgrid project



Leadership representing Fort Campbell, U.S. Army Corps of Engineers and other partners break ground on a six-megawatt microgrid project, October 3, 2023 in Fort Campbell, Kentucky.

Charles Delano



The microgrid project, will provide the capability for Fort Campbell to meet mission capacity for up to two weeks in the event the traditional power grid is affected by weather, cyber or physical threat.

Charles Delano

Charles Delano, public affairs

The U.S. Army Corps of Engineers, Louisville District broke ground on a six-megawatt microgrid, Oct. 3, 2023, at Fort Campbell, Kentucky. The microgrid, which incorporates three two-megawatt natural gas generators, will be used to generate

power to sustain critical airfield and related operations in an emergency.

“Units in Fort Campbell must be ready to fight tonight - they must be ready to deploy, fight and win when the nation calls, and projects like this will enable

that,” said Col. Christopher Midberry, Fort Campbell garrison commander.

Construction of the microgrid will include generators, buildings, natural gas lines, radiators, heat exchangers, transformers, equipment controls and communication.

“The project is a critical need for the Army and demonstrates a collaborative approach among stakeholders with lessons learned captured for future ERCIP projects,” said Rachael Haunz, USACE Military/ Interagency and International Support Project Management Branch chief.

The microgrid will provide redundant power capability to ensure Fort Campbell is able to meet 100 percent mission capacity for up to two weeks should there be interruptions from the traditional power grid due to weather, cyber or physical threat.

“This is a significant project,” said Lt. Col. Guillermo Guandique, deputy district commander, USACE Louisville District. “There are going to be a lot of lessons learned from this project and it will not only impact Fort Campbell but also the rest of the nation.”

Construction is scheduled to be completed August 2025 at a cost of \$16.3 million.

“A successful project is measured by the ability to overcome the obstacles that impact its progress. This team, though their professionalism, planning and communication, has been poised from the onset to deliver,” said Boyd Heaton, USACE project engineer, Fort Campbell resident office.

Louisville District successfully renovates Little Rock Army Reserve Center



The \$25.8 million project, which was awarded Sept. 2020, involved renovating a 1,000 member Army Reserve Center including the ARC training building and the Area Maintenance Support Activity (AMSA) facility. The renovated facility was turned over to the Army Reserve Sept. 15, 2023.

Abby Korfhage, public affairs

The U.S. Army Corps of Engineers Louisville District recently renovated, and turned over, the Little Rock Army Reserve Center in North Little Rock, Arkansas, Sept. 15, 2023 – 26 days ahead of schedule.

“Congratulations are in order to the entire project delivery team for demonstrating what winning looks like in the Reserve program,” said Kevin Jefferson, Louisville District Construction Division chief. “The full facility renovation of the Little Rock Army Reserve Center was safely delivered on time, within budget and was a quality project based on feedback.”

The \$25.8 million project, which was awarded Sept. 2020, involved renovating a 1,000 member Army Reserve Center including the ARC training building and the Area Maintenance Support Activity (AMSA) facility. The renovation included updating the heating, ventilation and air conditioning and plumbing, mechanical, security and electrical systems, and the facility also received paving, fencing, general site improvements and utility connections.

“I was very proud of how the entire project delivery team executed this renovation project,” said Michael Higgins, Louisville District project manager. “The entire PDT, to include Corps of Engineers Louisville and Little Rock Districts, Army Reserves and the construction contractor were very engaged and the communication was phenomenal.”



Lobby of the new renovated Army Reserve Center in North Little Rock, Arkansas.



Sample workspaces of the new renovated Army Reserve Center in North Little Rock, Arkansas.

Louisville VA Medical Center project reaches "bottoming out" milestone

Michael Maddox, public affairs

For most construction projects, progress can be visually measured as structures start to come out of the ground and begin to take shape. This would not be possible without the foundations that transfers the loads of the vertical structures to the soil safely. Part of that foundation work can include the installation of drilled piers.

The Louisville VA Medical Center project recently achieved the completion of a major feature of work by reaching the milestone of "bottoming out" with the installation of the last of 1,057 drilled piers across the site. The drilled piers ranged from 24 to 72 inches in diameter and from five to 35 feet in depth.

All buildings have some type of foundation. Most residential buildings have what is called shallow foundations which generally include spread footings to prevent the building from settling. Drilled piers are a type of deep foundation, which is generally utilized for larger buildings, like the Louisville VA Medical Center, said David Garvin, geotechnical engineer.

"Drilled piers connect structures directly to the bedrock - keeping the building in place by minimizing settlement and lateral loads from outside forces such as wind loads, seismic loads, etc.," he explained. "Since drilled piers are below the building, they are advanced from the top of the ground until bedrock is reached, with rebar and concrete placed, then the pier is tied into a column or grade beam."



At times there were multiple drill rigs working on the site of the Louisville VA Medical Center to prepare the earth for drilled piers.



One step in the construction of a drilled pier involved placing rebar and concrete into the hole that was previously cleared by a drill rig.

"Once the drilled pier is tied into the column or grade beam, the steel beams will be placed on top of it. After all steel beams are placed the loads from the entire building will transfer down to the drilled piers and disperse evenly throughout all drilled piers," Garvin said. "The drilled piers are one of the main components that keep the building in place."

With drilled piers playing such a key role, it's important that they are placed with precision.

"There are many things to keep in mind when drilling piers. First, you need to drill through soil until bedrock is reached, this is usually easy to complete but the hardest part is ensuring the pier is drilled at the correct location," he said. "Then, the drillers will reach bedrock. Once drilling through the rock is complete, the rock socket and bearing surface will be inspected. A professional experienced with inspecting drilled piers will perform a downhole inspection to ensure the rock socket and bearing surface is competent."

"The last step is cleaning out the pier and placing rebar and concrete. The piers are cleaned out via downhole entry and after the pier is cleaned the rebar will be placed in the

pier," he added.

Garvin said looking back that the work went well with only a few minor issues.

"It seems like the start of this feature of work had it's challenges, but after identifying the problems and coming up with solutions, the process was smooth sailing," he said.

The \$900 million project includes the construction of a new 910,115 square-foot medical center, parking structures, a 42,205 square-foot central utility plant, roadways, sidewalks, and other site improvements.

The new 104-bed, full-service hospital will provide world-class healthcare for more than 45,000 Veterans in Kentucky and Southern Indiana by integrating modern patient-centered care concepts to provide the best possible care for Veterans. In addition, to specifically address the needs of women Veterans, the new hospital will include a Women's Health Clinic with four Patient Aligned Care Teams.

The project designed by URS-Smith Group Joint Venture is being constructed by Walsh-Turner Joint Venture II, Chicago, Illinois.

Construction is anticipated to be complete in 2026.

Division Commander makes first visit to the Louisville District

Abby Korfhage, public affairs

The U.S. Army Corps of Engineers Great Lakes and Ohio River Division Commander Brig. Gen. Mark C. Quander made his inaugural visit to the Louisville District, Sept. 11-13, 2023.

During his visit, Quander received multiple briefings to learn more about the district's missions, had lunch with recent graduates of the Leadership Development Program, held a town hall with district employees, and visited several project sites to include John T. Myers Locks and Dam in Mt. Vernon, Indiana; Olmsted Locks and Dam in Olmsted, Illinois; the new Louisville VA Medical Center in Louisville, Kentucky, and Van Voorhis Elementary School in Fort Knox, Kentucky.

"You are all a hero to someone," Quander said while participating in the district's monthly forum. "Your work here matters."

Quander recognized several teammates during his visit. Geotechnical Engineer Steven Shifflett, Contracting Branch Chief April Judd, and Payroll Liaison Officer Sandra Flanders were presented coins for their exceptional service during the Commander's Forum held Sept. 11. Realty Specialist Patrick Shutt and Interior Designer Jessica O'Bryan were both presented Civilian Service Commendation Medals. Deputy Chief Value Officer Corey White was recognized for his exceptional support to the Chief Value officer of the Corps and outstanding contributions to the U.S. Army Corps of Engineers Value



Michael Maddox

Brig. Gen. Mark C. Quander visits the construction site of the new VA Medical Center being built in Louisville, Kentucky, Sept. 13, 2023. Quander was briefed on progress and also recognized project staff.

Program as the team leader of the Office of Value Expertise and was awarded the Meritorious Civilian Service Medal. Maj. Brandon Jones was awarded the Meritorious Service Medal for his exceptional contributions throughout his career and was also awarded The Bronze Order of the de Fleury Medal for his superior service to the United States Army Engineer Regiment.

Additionally, during site visits, Quander also recognized project staff to include Project Engineer Travis

McKim, who was recognized for efforts for the major maintenance project at John T. Myers Locks and Dam. Sherman Baker, lock and dam equipment mechanic, was recognized at Olmsted Locks and Dam for consistently going above and beyond in his duties. Additionally, Office Engineer and Contracting Officer Representative for the Louisville VA Medical Center Area Office, David Kopecky, was also presented a coin for his work on the Louisville VAMC project.

POW relative's remains coming home spurs pride in family, service and sacrifice



Pfc. Thomas Franklin Brooks was taken prisoner in the Philippines during World War II.

Michael Maddox, public affairs

Darren Smith, a natural resource specialist with Nolin River Lake in Bee Spring, Kentucky, has deep ties to the area around the lake, and those ties are about to become even deeper as the remains of his great uncle, a World War II Veteran, are to be brought home and buried at a local cemetery Oct. 1.

Smith's uncle, Pfc. Thomas Franklin Brooks, was taken prisoner in the Philippines during World War II. He was injured in fighting but survived eight months before dying of starvation in 1942. Brooks was buried in a communal grave at a POW camp, and after the war, his body was relocated to a cemetery for

unknowns in Manila.

Smith said his family learned of plans to bring Brooks home this past summer.

"Members of our family met with Army representatives in August. They described what had happened to Frank in 1942 as they know, where he was initially interred with eight other soldiers, how he was removed from the mass grave in 1946 and how attempts were made to identify those buried in the cemetery at the POW camp," Smith explained. "Frank's dental records were a close match but not good enough for Army standards. DNA was collected from his last living sister, Eula Thompson, in 2014. She died the following year, 2015. DNA was also collected from a great-niece,

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a great-great-niece, a nephew and a great-nephew. In 2018, researchers got permission to remove several of the unknown soldier remains in the Philippines to attempt to identify them through DNA. COVID paused the program in 2020. But a 100% DNA match was found with Frank and Eula in June 2023.”

Smith said he was always inspired by stories of his great uncle’s sacrifice as well as those of other Veterans in his family.

“Frank’s brothers also served in WWII - Hubert served in the Navy, Easol was Special Forces, Almon was in the Big Red 1 and Ralph – I can’t remember who he served with. All these men spoke of their brother with me on various occasions. These men were bigger than life to me,” he shared. “They didn’t share great details about their service, but they spoke of their brother on many occasions. As a child, and even now, I feel as if I knew Frank even though I wasn’t born until 30 years after his death.”

“As a kid attending church and homecomings at Hill Grove Missionary Baptist Church, it was with pride many times that I pointed out the grave marker for Frank’s grave and told the other kids what I knew about him,” Smith added. “His grave looked different from other graves in the cemetery, it was short. The headstone and footstone were only two or three feet apart. Almon, later in life, placed bronze plaques on all the veterans’ graves in much of Edmonson County, including his brother Frank’s.”

Family stories about the brothers’ service helped inspire Smith to serve others in his own way.

“The sacrifices they made were great, but those who didn’t come home made a sacrifice most can’t understand. I try to remind myself of that from time to time. Frank died at 23 years old. I wasted much of my 20-somethings chasing things of the world. Frank never had that opportunity,” he said. “When I think of this, I remind myself not to waste the rest of my life, do



Darren Smith, a natural resource specialist with Nolin River Lake, patrols the lake as part of his duties.

something meaningful, help others, serve where able to.”

“I have served on the local volunteer fire department as a fireman and EMT. I work hard in my church to help where needed. I assist neighbors I find are in need,” Smith said. “In my current job, I help the public to ensure they get to enjoy their weekend activities. I’m sure growing up with Uncle Frank’s stories always in the background have affected the decisions I have made in some way.”

Smith said his remaining family is humbled and proud to have “Uncle Frank” back home where he belongs.

“We are going to be happy to have him home. He will be buried beside his mother, in the spot his family always intended. It will be pretty emotional as well,” Smith said. “All of us have heard stories of Frank, so much so, it is as if we actually knew him. This will be his final chapter and we, as a family, are proud to be a part of it.”

“We all wish his brothers and sisters could have seen this day. We always thought there would be a chance, but as time passed you just thought there would be no way. The amazing work these men and women are doing to help families like mine bring their

relatives home just blows my mind,” he said.

Smith said the community support for his uncle being brought home and for his family has been overwhelming.

“It has really surprised the family how much attention this has received – we’re amazed. To us, Frank is a family hero who died in the Philippines serving his country. We never thought the community, area, or state was paying that much attention to this. It has been truly amazing to see all the new reports that have been reported on Frank and his returning home,” he said. “I’m not much about social media, but it has been a true blessing to see some of the responses from around the state, country, and even internationally about this event. There is good in the world, you don’t have to look hard to find it. Frank’s story is sad, but he is coming home. That’s positive. His brothers and sisters are already gone, but his family will stand in solidarity and pride on this day to celebrate one of our own.”

Brooks’ burial with full military honors took place Oct. 1, 2023, at Hill Grove Missionary Baptist Cemetery in Mammoth Cave, Kentucky.

Empowering the next generation: the importance of STEAM in schools

Katie Chandler, public affairs

In today’s rapidly advancing world, it has become increasingly important for students to develop a diverse set of skills. Among these skills, those encompassed in the STEAM (Science, Technology, Engineering, Arts, and Mathematics) program have taken center stage. In an era where innovation

and creativity drive progress, integrating STEAM education into schools has become vital to prepare students for the challenges and opportunities that lie ahead.

The U.S. Army Corps of Engineers Louisville District’s Col. L. Reyn Mann, was given the opportunity to speak with over 600

students, ranging from 6-12th grade, in the Virtual Youth Science Summit hosted by the Kentucky Science Center. Mann engaged with the students by not only telling her story but sharing the story of USACE and the tough challenges our

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projects face every day. She urged students to look around them and realize how much our lives are impacted by engineering solutions.

“STEM and engineering are so important and it’s all around us,” said Mann. “Every bridge that you cross, every building that you’re in, every dam that you see along with every levee and lock. When you look around, STEM is all around you and we need you.”

There is no doubt of the significance of the STEAM program and its impact on shaping future leaders.

Mann and a few of Louisville District’s engineering leaders made their way to University of Louisville’s J.B. Speed School of Engineering for another STEM event Sept. 26. By explaining the mission of USACE and its history, it is a goal to one day be the place they want to share their fresh perspectives, innovative ideas and technical skills, USACE leaders said.

USACE will continue to champion



Katie Chandler

Col. L. Reyn Mann speaks with senior engineering students about USACE's history and future at University of Louisville's J.B. Speed School of Engineering Sept. 26, 2023.

initiatives that prioritize STEAM education, ensuring that young learners are prepared to tackle the challenges of tomorrow.

“I joined the Army to see the world, I became an engineer to change it,” said Mann.

Louisville District walks to support World Mental Health Day



Kelsie Hall

Louisville District employees gather for a photo by the Louisville Riverfront during the World Mental Health Day Walk Oct. 10, 2023.

Kelsie Hall, public affairs

The Louisville District recognized World Mental Health Day, Oct. 10, 2023.

Since its inception in 1992, World Mental Health Day has been recognized annually on October 10th with the goal of raising awareness of mental health issues around the world and to mobilize efforts in support of mental health.

This year’s theme is “Mental health is a

universal human right.”

Critical Incident Stress Management (CISM) Team Peer Supporters from the Louisville District are challenging supervisors and employees to engage in activities supporting Mental Health Awareness Day in the office throughout the month of October.

Ideas included hanging up positive posters around the office, bringing in healthy snacks for employees to enjoy, providing

an online or printed resource list of mental health support services, holding an open discussion forum to talk about mental health stigma and how to reduce it in the workplace, designating a self-care day, and enlisting a senior leader in a mental health share.

CISM is intended to lessen the overall impact of stress and accelerate recovery in people who are having normal reactions to abnormal events, such as work stress.

Barren County's first mountain bike trail opens at Barren River Lake

Kelsie Hall, public affairs

An overgrown picnic area on the east side of US Route 31-E. in Lucas, Kentucky has received new life now repurposed as a mountain bike trail. The more than 140 acres of land had previously been leased by the Kentucky Department of Parks, but in September 2018 the state requested a lease relinquishment due to decreased recreational use by the public. U.S. Army Corps of Engineers employees at Barren River Lake were soon approached by Southwest Kentucky Mountain Bike Association (KyMBA), a chapter of the international Mountain Bike Association, about utilizing the site for the development of a new trail.

"Southwest KyMBA was already a familiar face to Barren River Lake staff since they are the managing partner for the Twisted Oliver Trail at Port Oliver Recreation Area [in Scottsville, KY]," said Barren River Lake Natural Resources Specialist Dan Taylor.

Once Southwest KyMBA was brought

on as a managing partner the process really took off. While Southwest KyMBA brought on a professional trail builder to survey the land and begin flagging the two proposed loops of the trail system totaling about eighteen miles, Barren River Lake staff began working to secure the required cultural and environmental clearances to begin development of the trail. By August 2020 construction on Highlander Trail had begun.

Construction began solely with volunteer labor and equipment from Barren River Lake, but in October 2020 Barren River Lake partnered with Southwest KyMBA, Friends of Barren River Lake & Park, Cave Country Trails, and the Barren County Evening Lions Club to be awarded a USACE Headquarters funded Handshake Grant. In March 2022, those funds were used to award a contract to a professional trail builder to complete construction on the War Hammer Loop of the Highlander Trail System.

By the time construction of the War Hammer Loop was complete, Southwest KyMBA had contributed over 60 percent of the total cost and more than 2,000 volunteer hours. Its completion makes it the first mountain bike trail in Barren County and the second for Barren River Lake.

The Highlander Grand Opening Trail Fest took place Aug. 19 in Lucas, Kentucky. More than 200 people attended the event, both locals and visitors from nearby counties, featuring both trail runs and mountain bike races for all ages along various lengths of the 4.5-mile War Hammer Loop. War Hammer Loop features two jump lines and two flow trails, and is loaded with berms, tables and rollers, climbs and descents.

"Mountain biking, hiking and trail running have all become very popular outdoor activities in the last few years, with mountain biking being one of the fastest growing sports in the country," said Taylor. "This trail will be an essential part of the growth of eco-tourism for Barren County and the Barren River Lake area as a whole. The addition of Highlander Trail to Barren River Lake and the already popular Twisted Oliver Trail, Barren River Lake will be a destination spot for mountain biking in the region. We also see this new trail as a way to get our recreating public to reconnect with the great outdoors and further promote the fostering of healthier communities through nature rich activities."

"Our passion is to get people out on the trail and live healthier lives," added Southwest KyMBA President, Chip Winger.

As managing partner, Southwest KyMBA will take responsibility for the ongoing maintenance of the trail moving forward and has already begun scheduling future races.

"We can't say enough about the value in great partners," said Taylor. "Southwest KyMBA has been a great trail steward from their first involvement with USACE at Nolin River Lake to the two trails that we now have at Barren River Lake. In these fiscally challenging times, it is our partners that allow us to offer these new trail systems to our recreating public. We look forward to working with Southwest KyMBA on the development of Bagpipe Burner Loop at Highlander, which will complete that trail system."



Mountain bikers of all ages gather and prepare to start a race at the Highlander Trail to kick off the grand opening Aug. 19, 2023, in Glasgow, Kentucky.

Kelsie Hall

Louisville District celebrates excellence at End of Year Awards Ceremony



Kelsie Hall



Kelsie Hall

Katie Chandler, public affairs

The Louisville District hosted an End of Year awards ceremony to celebrate the end of another successful fiscal year Oct. 4. The district obligated more than \$1.15B in program dollars in FY23.

Louisville District Commander Col. L. Reyn Mann, Lt. Col. Guillermo Guandique and Deputy District Engineer John Bock recognized several district team members with national, regional and district level awards during the ceremony.

“Thank you to everyone in the district for all of your hard work and dedication,” said Lt. Col. Guandique. “Without your efforts —day in and day out —we wouldn’t be able to achieve the level of success the Louisville District is known for.”



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