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The U.S. Army Corps of Engineers celebrated its 250th anniversary in 2025.

Since June 16, 1775, the U.S. Army Corps of Engineers has been instrumental in shaping America's development, and among its 45 districts, the Kansas City District has been a key component in USACE's mission success.

The Kansas City District, which covers a region encompassing parts of Missouri, Kansas, Nebraska and Iowa, has played a crucial role for the nation throughout history. Whether through disaster response, providing critical infrastructure, restoring ecosystems or supporting military readiness, the district continues to honor USACE's rich history while looking ahead to new challenges.

We hope you enjoy reading about our work from 2025, and we look forward to what 2026 will bring.

Visit nkw.usace.army.mil or follow us on social media @usacekc to learn more.

Left: A diver receives help donning his diving helmet before he entered the Kansas River to salvage steel under the 12th Street Bridge, as part of a 1953 channel improvement project.

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Heartland Engineers inspect dams: To protect life and provide leisure.

ON THE COVER:

Structural engineer Sam Leimer (blue jacket), electrical engineer Jason Jestila and maintenance engineering section chief J.C. Randazzo (bucket hat), inspect structural, electrical and other instruments on the exterior of the Hillsdale Dam control tower and bridge on Tuesday, March 25, 2025.

PHOTO BY LAWRENCE BROOKS IV, PUBLIC AFFAIRS SPECIALIST

Fort Scott National Cemetery Lodge

By Christine E. Reinhardt | Public Affairs Specialist

There is something awe-inspiring about seeing thousands of white marble headstones uniformly lined up throughout pristinely manicured grounds. Entering the iron gates of the Fort Scott National Cemetery, a quiet somberness descends as you take in the graves nestled into the hillside.

While the cemetery has existed since the 1840s, it wasn't designated as a national cemetery until 1862 by President Abraham Lincoln—making it one of the first to be dedicated to American military personnel.

Back then, it was common for cemeteries to have caretakers responsible for maintaining the grounds. These caretakers and their families often lived in houses built inside the cemeteries, and at the Fort Scott National Cemetery, the caretaker's lodge is still standing. Not only is it still standing, but it's currently used as administrative offices, dressing rooms and storage for today's staff.

PHOTOS BY CHRISTINE E. REINHARDT, PUBLIC AFFAIRS SPECIALIST

"THE SUCCESS OF THIS PROJECT HAS BEEN A COLLABORATIVE EFFORT FROM THE ENTIRE TEAM."

Carlos Amezcua, construction control representative with the Kansas City District.

However, the historic Fort Scott National Cemetery Lodge needed a renovation—not surprising for a building that's more than 150 years old. Originally built in 1871, the historic caretaker's lodge renovation is being led by the Kansas City District, U.S. Army Corps of Engineers.

"Fort Scott National Cemetery is a deeply significant and historic site," said Carlos Amezcua, construction control representative with the Kansas City District. "The cemetery provides a respectful and dignified place for families to honor and remember their loved ones. It also serves as an educational resource for visitors, offering insights into the history of those who served our country."

According to Amezcua, various renovations to the Fort Scott National Cemetery Lodge have been completed over the years, but nothing as extensive as the current project. He explained the building's current renovation includes electrical, architectural (exterior and interior), roofing, mechanical and plumbing improvements, as well as the restoration of various historical features.

The Kansas City District, U.S. Army Corps of Engineers is renovating the Fort Scott National Cemetery Lodge, which was originally built in 1871. Part of the renovation project includes renovating the original slate roof tiles, windows and brick exterior.

The Fort Scott National Cemetery Lodge, originally built in 1871, is currently used as administrative office, dressing rooms and storage space at the cemetery. The Kansas City District, U.S. Army Corps of Engineers, is renovating the Lodge using period-specific designs.

Carlos Amezcua, construction control representative with the Kansas City District, U.S. Army Corps of Engineers stands in front of the newly renovated Fort Scott National Cemetery Lodge.

While some features of the renovation are new, like a new HVAC system and a new fire alarm system, others are original to the 150-year-old building. Take the red brick exterior, the slate tile roof and the windows, for example. All of these are original to 1871, when the house was first built.

"We had to get historic masonry experts out here that knew exactly what they needed to do to get [the exterior brick] restored, not only for the aesthetics, but also for the structural component," said Amezcua. "[The slate roof and the original windows] were all restored … so they're very unique. We are trying to get them as close as possible to period specific."

Renovating these original features has not been easy, according to Amezcua. In part because of how old they are, but also because of Fort Scott National Cemetery's somewhat remote location.

"We have the challenge of being in a unique location and since the Fort Scott National Cemetery was added to the National Register of Historic places in 1999, all work must comply with the Secretary of the Interior Standards for the Treatment of Historic Properties and the Secretary of the Interior Standards for Archeology and Historic Preservation," said Amezcua.

Despite the challenges of this extensive renovation project, once complete, it will serve as a historically important facility in the Department of Veterans Affairs National Cemetery Association's portfolio.

"The cemetery has a profound and lasting impact on both the fallen servicemembers and their families," said Amezcua. "The success of this project has been a collaborative effort from the entire team. It's been a real honor and privilege to be part of it."

Overlooking the graves of those who rest there, the Fort Scott National Cemetery Lodge has filled the role as the cemetery's caretaker. The historic building has stood watch over our nation's fallen heroes for more than 150 years and because of this renovation project, it will continue to do so for many more.

BEHIND THE MISSION

By Lawrence Brooks IV | Public Affairs Specialist

How the U.S. Army Corps of Engineers' real estate experts fuel America's recruiting force

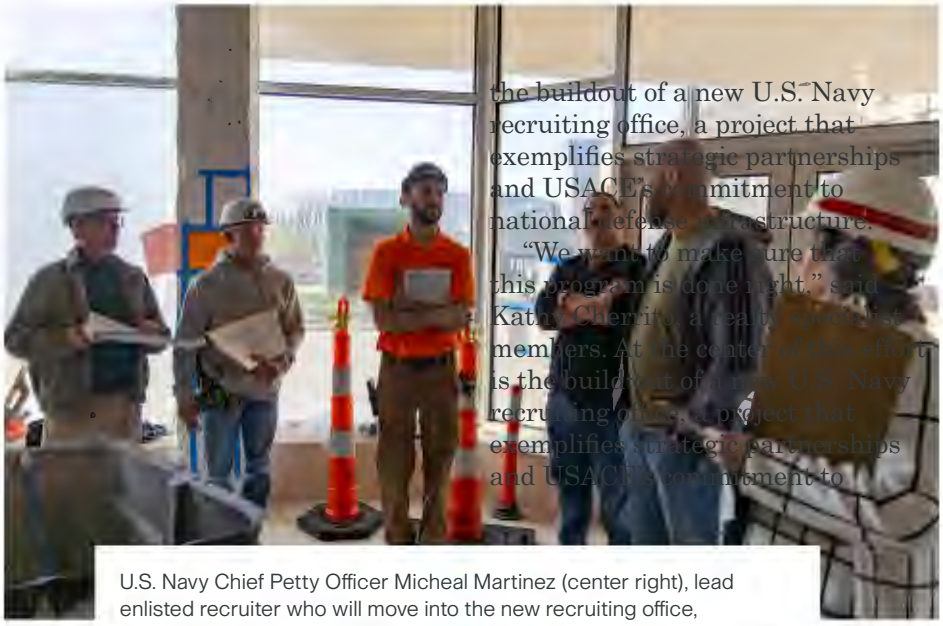
Gus "Rau" Meyer (left), owner of general contracting company Rau Construction Co., and Kathy Cherrito (right) real estate specialist for the Kansas City District, U.S. Army Corps of Engineers, go over contract details during a site visit in the build-out phase of a new U.S. Navy Recruiting Office on Monday, April 7, 2025.

The Kansas City District, U.S. Army Corps of Engineers, plays a critical behind-the-scenes role in supporting the nation's armed forces recruiting mission by managing the new construction or modernization of Armed Forces Career Centers. Through strategic leasing, construction and collaboration, their work helps shape the spaces where America's next generation of service members start their journey.

A new chapter in military recruitment is taking shape in downtown Kansas City, Missouri, where collaboration between the Kansas City District, USACE, the Department of Defense and private industry is reshaping how the nation's armed services engage with the nextgeneration of service members.

At the center of this effort is

PHOTOS BY LAWRENCE BROOKS IV, PUBLIC AFFAIRS SPECIALIST



U.S. Navy Chief Petty Officer Micheal Martinez (center right), lead enlisted recruiter who will move into the new recruiting office, surrounded by members of the general contracting team and Kansas City District real estate specialist Kathy Cherrito as they discuss construction progress on the morning of Monday, April 7, 2025.

national defense infrastructure.

"We want to make sure that this program is done right," said Kathy Cherrito, a realty specialist with the Kansas City District's Military Branch. "We're providing safe, clean and quality locations to hopefully bring in the most qualified candidates."

Cherrito, who once worked for the Department of the Navy, has supported military recruiting in some capacity for over two decades. She views her role with a deep sense of pride and national purpose.

"I think what we do helps prevent the draft," she added. "In some little way, we contribute to keeping that from happening again by supporting an all-volunteer force."

The recruiting office is part of a broader effort by USACE to ensure that recruiting operations for all military branches in the region have modern, accessible spaces to connect with prospective enlistees.

"We want the best of the best for our armed forces," Cherrito said. "And I think we play a big part in that by giving recruiters a platform to show what a military career can offer."

From a construction standpoint, Rau Construction Company, located in Kansas City's iconic West Bottoms district, is delivering the vision since the firm was selected as the general contractor for the recruiting office build-out. Gus Meyer, the company's co-owner, said although his firm is no stranger to high-profile projects, this one takes on greater meaning.

"This isn't just another tenant improvement," Meyer said. "We're talking about a space that reflects the professionalism of the U.S. Navy and the importance of their mission."

The project includes significant structural and aesthetic upgrades to a corner property in the old historic Argyle Building, just steps away from Kansas City's Power & Light district and the T-Mobile Center. Cherrito said a huge factor in the location being chosen is its visibility and foot traffic.

"There's going to be large window wraps advertising U.S. Navy career fields," Cherrito explained. "It's going to be a real presence — something that draws people in."

The Mid America Navy Recruiting Command out of St. Louis, ultimately made the decision to relocate from a larger facility in North Kansas City, Missouri to the new location. Cherrito added another factor that influenced the move was changing trends in recruiting over the years.

"They just didn't need all that square footage anymore," she said. "They wanted something more centralized, and there's no better place than downtown."

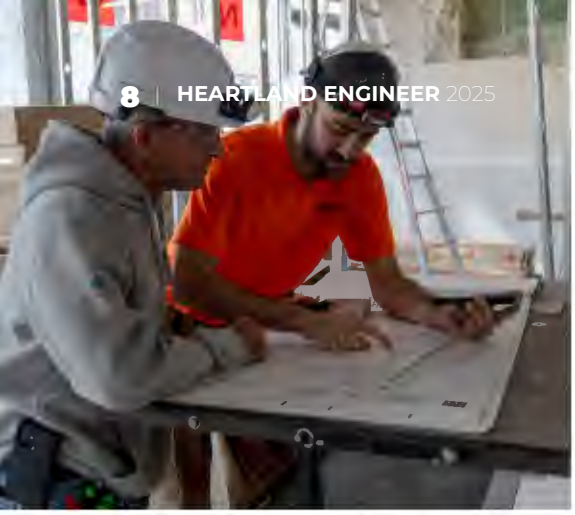
Beyond cost savings and visibility, she said that projects like these typically strengthen the local economy in some way.

"When we lease or renovate a sthat's steady income for local property owners," Cherrito noted. "We've had leases in place for 20, 30 years in some cases — that's stability for the community."

Mark Gellings, a senior realty specialist in the Kansas City District Real Estate Division's Military Construction Branch, sees the U.S.

"OUR MISSION INCLUDES PROVIDING FULL REAL ESTATE AND CONSTRUCTION SUPPORT TO ALL THE SERVICES."

Mark Gellings, a senior realty specialist in the Kansas City District Real Estate Division's Military Construction Branch.



Navy recruiting office as a template for future interagency and private sector collaboration.

"Our mission includes providing full real estate and construction support to all the services," Gellings said. "In this case, it's about giving the U.S. Navy a new recruiting space that fits their evolving needs, within budget and on schedule."

Gellings, who helps manage military construction efforts across several states, emphasized how the project balances cost-efficiency with long-term value in the face of increased scrutiny on how the federal government and agencies like USACE and the DoD spend the millions of dollars allotted to them annually by Congress.

"We're good stewards of taxpayer dollars," he said. "That means making smart leasing decisions and delivering construction projects that stand the test of time."

For Meyer, the opportunity to partner on federal projects like this one, carries weight.

"Any time you work with USACE, it's a high bar," he said. "It's always about quality, coordination and purpose."

Meyer also detailed the positive effects federal dollars have on the lives of local subcontractors who are hired to do the labor. He said that money helps keep local families, and the many local businesses they support, thriving.

"There's an investment in our construction company of about $800,000," Meyer said. Fifty percent of the investment in Meyer's company, then goes directly into labor costs. He expressed little doubt about where that money flows to. "The multiplier of a couple thousand dollars per worker, trickles down to the grocery stores, the hardware stores and everything else."

As the project nears completion, all parties agree on the mission's deeper meaning.

"This isn't just about real estate," said Gellings. "This is about making sure the military has what it needs to inspire the next generation of Soldiers, Sailors, Airmen and Marines."

As the nation continues to rely on an all-volunteer force, the work of the Kansas City District's Real Estate Division remains vital — ensuring recruiters have the tools they need, and that every new service member's journey begins on solid ground.

As for Cherrito, whose career began answering recruiting calls for the U.S. Navy, the work remains personal.

"I've come full circle," she said. "I'm still helping people find their calling in service —and doing it through the work I love."

the U.S. Navy, the work remains personal.

"I've come full circle," she said. "I'm still helping people find their calling in service —and doing it through the work I love."

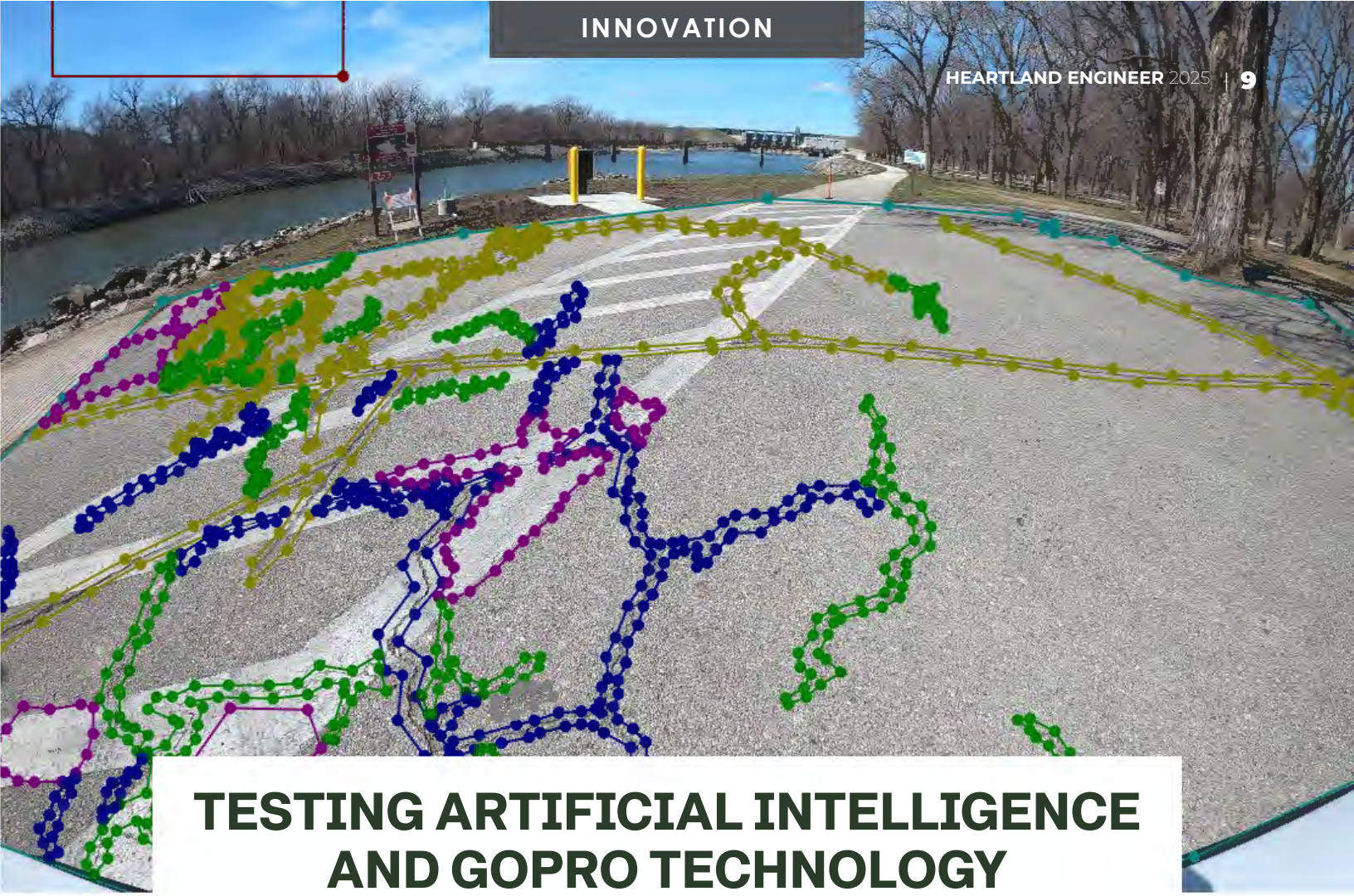
Photos top to bottom:

Korbin Turner (right) of Westhues Electric Inc. goes over blueprints with the superintendent from Rau Construction Co., Ryan Howerton, on Monday, April 7, 2025, during the build-out of a new U.S. Navy Recruiting Office in downtown Kansas City, Missouri.

A technician from commercial HVAC company, Edward McDowell Inc., works on the ventilation system during the build-out phase of a new U. S. Navy Recruiting Office in downtown Kansas City, Missouri.

Realty specialists Kathy Cherrito and Mark Gellings (right) speaks with the security system contractor about details of the system and estimated time of completion on Wednesday, May 28, 2025.

An employee from Fast Signs in Overland Park, Kansas, puts up U.S. Navy branding material on the exterior windows of the new recruiting office on May 28, 2025.



TESTING ARTIFICIAL INTELLIGENCE AND GOPRO TECHNOLOGY

By Lawrence Brooks IV | Public Affairs Specialist

The Kansas City District tests Artificial Intelligence and GoPro technology to improve roadway and campground maintenance with new pilot program

The Kansas City District has long played a significant role in testing and implementing new approaches to conducting work across its sprawling footprint in Missouri, Kansas, Nebraska and Iowa. Now, a new pilot program that leverages GoPro cameras and artificial intelligence technology reflects a broader commitment to using these tools for smarter, more efficient ways to serve the needs of the public it serves across the region.

All summer long, innovation has been the emphasis for the U.S. Army Corps of Engineers and its nine divisions and 45 districts spanning the globe.

Since the spring of 2024, the Kansas City District has been leading the way by helping pilot an innovative program — which combines GoPro cameras with an Artificial Intelligence analysis tool to survey the conditions of road and parking lot surfaces across the district's 18 lake projects.

"We attach the GoPro to the hood of a vehicle and simply drive the roads and parking lots while the GoPro takes geotagged photos," said Kylie Ward, asset manager for the Kansas City District Operations Division.

According to Ward, the camera snaps a picture at five second intervals, looking for hazards or defects. The photos are geotagged so they can be overlaid on a map to show what road segment and parking lot they belong to.

Then, that footage is provided

PHOTO BY ALLISON BORKOWSKI

PHOTO BY KYLIE WARD

Left: A shot from a mounted GoPro camera that is taken in 5-second intervals. The tarp is used to calibrate the camera angle and other features every time it is mounted to the hood of any government vehicle used to collect the data.

Top: The view from GoPro camera mounted to the hood of a vehicle used by asset manager for the Kansas City District operations division, Kylie Ward, when she surveyed roads leading to a boat ramp at Wilson Lake in central Kansas.

to the contractor who built the artificial intelligence tool specifically for USACE to flag and rate road surface deficiencies, placing them into a range of categories defined within the Recreational Operational Condition Assessment rating guidelines. Another positive is that the contracted portion of this process is funded by the Federal Lands Transportation Program.

USACE has used the Operational Condition Assessment tool for years to rate the conditions of roadways, parking lots and other recreational infrastructure maintained by USACE. The tool outlines common pavement defects such as alligator cracks, rutting or distortions, patches, road raveling and potholes just to name a few, that are calculated to give each road segment and parking lot a rating on a grade school style scale ranging from A for excellent, to F for failed.

Ward said the new technological approach to rating the hundreds of miles of roadways the Kansas City District owns and maintains, reduces time in the field compared with traditional walk-through inspections — while producing nationally consistent data that in theory, will help drive more accurate maintenance planning and funding prioritization in the future.

"By automating the survey and rating process, we reduce the subjectivity that sometimes comes with visual inspections," she said.

STREAMLINING CONDITION ASSESSMENTS

The data collected from each lake project feeds into USACE's Operational Condition Assessment system, better known as OCA, which rates assets on a five-year cycle. Ward, who recently used this technology to survey Perry Lake in northwestern Kansas, said this new process saves a significant amount of time and man-hours.

"Normally, road and parking lot condition assessments require two trained OCA team members plus one person from the project," Ward said. "Utilizing the GoPro and AI technology allows it to be one person and a vehicle."

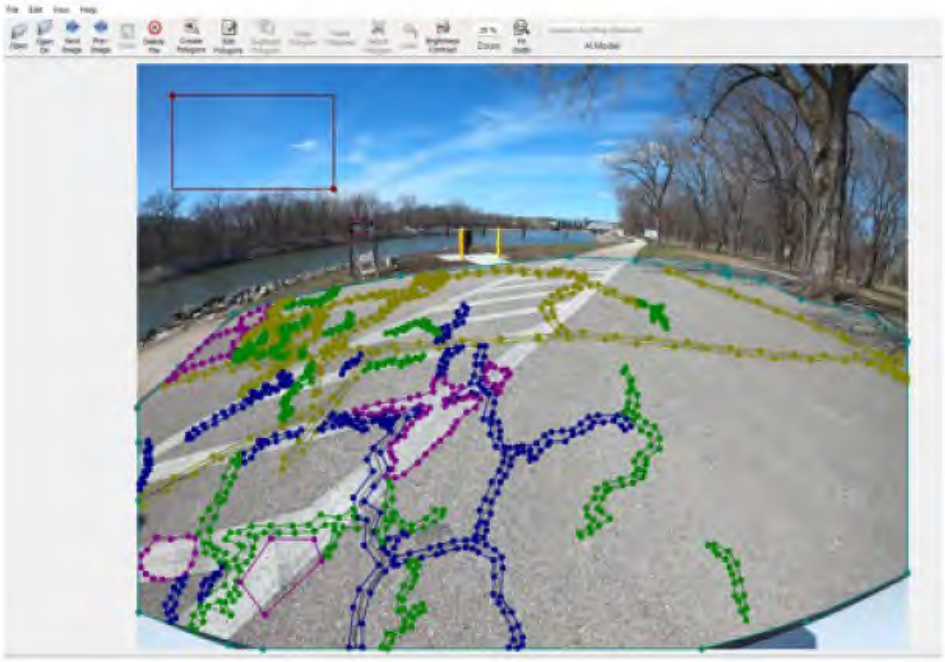
Using this GoPro method, the person collecting the data doesn't even have to be someone trained in OCAs. Once a district's road and parking lot imagery is collected, it's sent to Allison Borkowski, park ranger at the Mississippi River Project Office in the Rock Island District. Allison serves as the contracting officer's representative for this effort and works closely with the contractor to get the results back for USACE.

So basically, Borkowski functions as the liaison between parties. She said the workflow has become faster as the model improves, and formatting "kinks" are resolved.

"Last time it took us about five or six months for the first original batch of data," Borkowski said. "Now that all those kinks are worked out, we're expecting it to take less time."

She said the current task order is larger than the first, covering about 40 lake projects, but the artificial intelligence model has been "dialed in and trained even more."

After districts ship back the cameras, Borkowski moves the images from a subscriber identity module, commonly known as a SIM card, onto a standalone computer that overlays them with existing geographic information system (GIS) data of road and parking



SCREENSHOTS BY ALLISON BORKOWSKI

Top: Screenshots of the artificial intelligence program identifying pavement deficiencies from a survey of pavement at a project site.

Bottom: The colored lines in the photo are an example of the artificial intelligence program reading the different pavement deficiencies it found while collecting data. Some examples of road and pavement defects its trained to identify from the Recreation Operational Condition Assessment guidelines are alligator cracks, longitudinal cracks, potholes, patching and traverse cracks.

layer surfaces, then forwards the package to the contractor.

"It goes in and it reads all of the different deficiencies on the road," she said.

Borkowski added that the lighter field footprint is part of the appeal. Project offices can use whoever is available — from lake managers to seasonal staff — to capture all the imagery needed for assessments.

"You can send one person off to do it on their own," she said. "It's a great project for summer interns to go and do. You don't necessarily have to have your upper management or supervisors going out to collect the data."

She also said that feedback has improved exponentially as more districts and their lake projects participate.

"Before people collect, they seem a little worried," she said. "By the time people have been sending the cameras back, I've had good feedback. A lot of people say it's a lot easier than they thought it was going to be."

The team sends projects in batches so the contractor isn't overwhelmed, and results can be compared in waves. Borkowski said the current contract is expected to run through five task orders.

LOOKING AHEAD

If performance remains strong and funding persists, the method could continue beyond the current agreement.

"It's looking more successful with each task order," Borkowski said. "We're getting more streamlined, so it looks like this is the way it's trending."

Ward agreed and said the efficiency gains matter because they enable districts to focus on repairs that most affect visitors.

"The more data we collect, the better we can prioritize repairs and stretch taxpayer dollars further," she said.

Borkowski said that USACE Headquarters and the OCA teams meet monthly to review progress and funding. She also made it clear that she appreciates the coordination that allows money to move quickly from USACE Headquarters to projects through the OCA program and its partners.

"It's clear to see the trickle down of money that begins at headquarters and how it gets all the way down to the project in terms of the data collecting and eventually the data is uploaded into our OCA system," she said.

As the next batch goes out, Borkowski said districts are eager to compare the second wave of results with the first in hopes to keep refining the process.

"We're still in our beginning stages," she said. "It'll be interesting to compare our results."

LIKE GOING TO THE DENTIST

By Christine E. Reinhardt | Public Affairs Specialist

Perry Dam tests innovative preventative maintenance system to clean relief wells

Preventative maintenance is important for many things—cars, homes and even our bodies. Keeping things healthy and running smoothly helps prevent major breaks or failures throughout the course of a life. The same is true for dam and levee relief wells.

Some dams and levees are built with a system of water wells, which are constructed downstream to relieve excess pressure in the foundation. These relief wells experience natural build-up and need to be cleaned, roughly every three to five years, to ensure water can flow freely.

"The biological build-up is a result of naturally occurring bacteria in the ground water that can rapidly spread and block or reduce the flow of a well," said Brandon Harmon, geologist with the Kansas City District, U.S. Army Corps of Engineers.

Various methods exist to clean the relief wells but often require the use of harsh chemicals and special equipment. Using harsh chemicals is not only a safety risk to the people cleaning the relief wells, but also to the environment.

"[The operators use] oxalic acid in combination with a high temperature water treatment. It's not as safe to work with a high strength acid in combination with high temperature water," said Dr. Clint Smith, senior research biologist with USACE's Engineer Research and Development Center Geospatial Research Lab. "It can destroy clothes, have high risk for burning the operators cleaning the wells and a lot of it can destroy the environment."

Luckily, researchers, scientists and engineers at the Engineer Research and Development Center developed a Relief Well Sustainment - Deployable Resilient Installation Water Purification and Treatment System, which despite its long name, is a much safer, simpler method for cleaning relief wells. Perry Dam in the Kansas City District recently tested the innovative system on its relief wells.

"This test is in the middle of the normal three-year rejuvenation cycle and will reduce the amount of biological build-up allowing the wells to flow more efficiently until the next [one,]" said Harmon. "[The Engineer Research and Development Center team] will demonstrate the process, and their intent is to provide the Kansas City District with the system to continue to use for future well rejuvenation efforts."

Developed in 2022, the Relief Well Sustainment - Deployable Resilient Installation Water Purification and Treatment System uses table salt to create chlorine via gas infusion, which is then pumped into the relief well using water already available at the dam. According to Dr. Smith, this method

The USACE Engineer Research and Development Center team and staff from the Kansas City District test the Relief Well Sustainment - Deployable Resilient Installation Water Purification and Treatment System at Perry Dam on April 9, 2025.

PHOTOS BY CHRISTINE E. REINHARDT, PUBLIC AFFAIRS SPECIALIST

The USACE Engineer Research and Development Center team sets up the Relief Well Sustainment - Deployable Resilient Installation Water Purification and Treatment System, which uses table salt to create chlorine via gas infusion and is then pumped into the relief well using water already available at the dam. This method is a safer, easier and more cost-effective method for cleaning dam and levee relief wells.

Right: Table salt is used to create chlorine via gas infusion and is then pumped into the relief well using water already available at the dam. The mixture will sit overnight and then will be pumped out of the well, removing the build-up of debris.

is much safer than other methods used in relief well rejuvenation.

"For the system that we use, all you must do is bring out enough salt to operate the system for the number of wells that you need to treat that day. For this effort, the cost of salt to treat the relief wells at Perry Dam was less than six dollars, which filled the 1,000-gallon tank at least three times. There's a lot less hazardous materials that you're hauling around," said Dr. Smith. "A little bit of high-strength bleach might bleach your clothes, but it's not as hazardous as an acid on your clothes or skin and it dissipates in the treatment process—it doesn't linger in the reservoir."

After the chlorinated water is pumped into the relief well, it will sit overnight before being pumped out of the well.

"The air lifting is essentially pumping air into the bottom of the well and all the debris comes out," said Dr. Smith. "It helps keep a healthy flow for normal operation and reduces stress for the extended life of the dam or levee."

While safety is always USACE's number one priority, the Relief Well Sustainment - Deployable Resilient Installation Water Purification and Treatment System is easy to transport and requires no special tools to operate. Furthermore, the innovative system has a cost saving benefit. According to Smith, table salt costs about 30 cents per pound, whereas oxalic acid costs about one dollar per pound, or higher, depending on the purity.

The Kansas City District alone has several dozen relief wells at its dams. Over time, the cost savings of using the Relief Well Sustainment - Deployable Resilient Installation Water Purification and Treatment System start to add up significantly.

"If you start calculating for treatment of 100 wells and if you did it over five years, it would be $10 for salt and $275,000 for oxalic acid," said Dr. Smith. "It gets into the millions after 100 years, so you can start to see the cost savings."

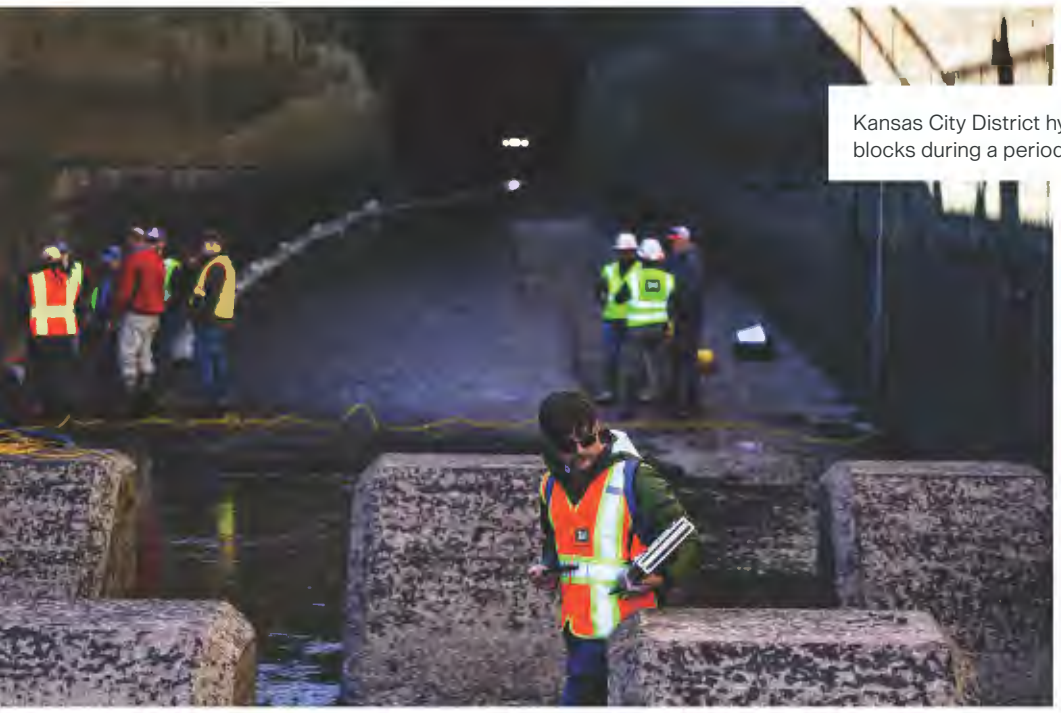
As critical infrastructure, dams and levees must be properly maintained to ensure they perform effectively during flood events, protecting both life and property. Smith and his team are happy to teach USACE geologists and drill crews out in the field how to use their innovative system as part of routine dam and levee maintenance.

Their hope is to get more Relief Well Sustainment - Deployable Resilient Installation Water Purification and Treatment Systems to more districts in USACE as a safer, more efficient method for relief well rejuvenation. Additionally, the team is hoping to bring down the cost of the overall system by reducing its size while maintaining its impact on the relief well treatment process.

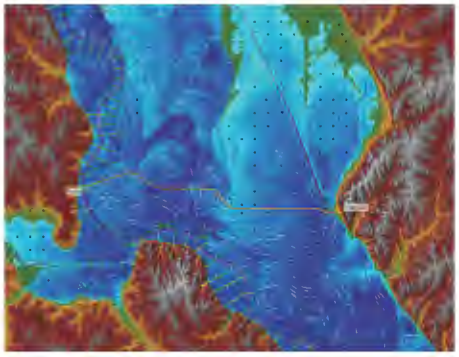
"It's kind of like going to the dentist or to the doctor. If you go periodically, then it's not so bad. If you don't go for 30 years and your arteries are bad, you might need surgery," said Dr. Smith. "It's the same idea—if we treat [relief wells] and we treat them often, that's a return on investment."

"IT'S KIND OF LIKE GOING TO THE DENTIST OR TO THE DOCTOR. IF YOU GO PERIODICALLY, THEN IT'S NOT SO BAD. IF YOU DON'T GO FOR 30 YEARS AND YOUR ARTERIES ARE BAD, YOU MIGHT NEED SURGERY."

Dr. Clint Smith, senior research biologist with USACE's Engineer Research and Development Center Geospatial Research Lab.



Kansas City District hydraulic engineer Gabe Flanders inspects baffle blocks during a periodic inspection of Melvern Lake Dam.



An inundation map created by the USACE Hydrologic Engineering Center River Analysis System (HEC-RAS) hydraulic modeling software. The solid green lines show waterway cross section while the short white marks indicate water flow during a flood event.

BENEATH THE SURFACE

By Taylor King | Public Affairs Specialist

Inside the Hydrology and Hydraulics team

When the rain falls or snow melts, the rivers rise. For the engineers who study water, there is no panic—just a quiet team of professionals, carefully studying the flow, ensuring that the water stays where it's needed most. They are problem-solvers, innovators and experts of water resources. Through their work, they ensure that no matter how unpredictable the weather, local communities are as prepared as possible.

While the work of U.S. Army Corps of Engineers hydraulic engineers might not make the front page of the newspaper, it is a constant presence in the background, quietly keeping communities safe and thriving. The Kansas City District knows the importance of keeping an eye on water better than most, having suffered extensive flooding in 1993, 2011 and 2019.

To truly grasp the importance of the Hydrology and Hydraulics section, it's essential to understand the two branches of science it covers: hydrology and hydraulics.

"Hydrology is the study of the water cycle like you learned in elementary school," said Dane Morris, chief of the Hydrology and Hydraulics section. "We focus on where the water is coming from, how much of it falls in a given area at any one time and what that water does once it hits a surface."

Erin Reinkemeyer, a hydraulic engineer with Hydrology and Hydraulics, adds, "And then hydraulics comes into play, which is the physics of how water moves, fluid dynamics and fluid mechanics. Once that water reaches a project site, we're focused on how it's going to flow, how it's going to impact our site and how to design the project to deal with it."

For the Hydrology and Hydraulics section, water is more than a liquid that flows downstream. There are many factors—terrain, soil composition, weather events and man-made structures—that all affect how water behaves. Hydraulic engineers analyze and predict how water will move through a space, and from there they help design solutions to manage those water flows.

The work of Hydrology and Hydraulics is vital to USACE's ability to respond to a wide array of engineering challenges. Whether it's determining levee height for flood protection or managing wetland ecosystem restoration projects in rivers, water is at the core of most USACE projects.

"Any major mission area we have in the district, we play a role at one time or another because water is a key component of almost every project we have," said Morris.

This focus is especially important to the Kansas City area

PHOTOS BY SAM WELDIN, PUBLIC AFFAIRS SPECIALIST

and surrounding region. Flood management is a key component of the Kansas City District's work, particularly given the region's geography. Both the Missouri and Kansas rivers along with their tributaries can quickly swell after heavy rains, and when the rivers meet in the heart of Kansas City, Missouri, flooding puts thousands of people and billions of dollars of assets and property at risk.

"With levee design, we're the ones responsible for determining how high a levee will be built and where the levee will actually be placed," said Reinkemeyer. She added the Kansas City District Hydrology and Hydraulics engineers also conduct computer mapping and modeling of potential flood events, as well as inspections, assessments and safety evaluations of USACE dams and reservoirs nationwide.

The scale of the Hydrology and Hydraulics section's work is enormous, spanning vast watersheds like the Missouri River basin, which covers more than 500,000 square miles. The sheer size and complexity of the projects, especially those in large watersheds, can feel overwhelming. Yet many of the Hydrology and Hydraulics section's engineers choose to work for USACE precisely because of that challenging scope.

"Everyone that works in Hydrology and Hydraulics has a passion for water resources because you don't get to do this type of work

"EVERYTHING WE DO COMES DOWN TO IMPACT."

Erin Reinkemeyer, a hydraulic engineer with Hydrology and Hydraulics.

scale of the projects, the scope of the projects, the impact that you have on communities, the environment and the region. You're not going to do that anywhere else. That's why we get the best water resource engineers around, because this really is the peak."

Morris emphasized that while the scale of projects often presents technical challenges, USACE engineers can reach across not only district lines for assistance, but also engage with multiple state and local partners who share the workload.

"There's a really great, collaborative Hydrology and Hydraulics community that goes beyond [USACE] and we've built a lot of mutually beneficial relationships with our partners," said Morris.

Depending on the project, Hydrology and Hydraulics engineers will work with transportation and conservation agencies across multiple states simultaneously, and partner with a diverse array of federal agencies such as the United States Service and Bureau of Reclamation.

"Together we've all been working on the Missouri River Basin for over 100 years," he said. "We have a lot of institutional knowledge on how the system works, and what makes it tick—or break."

While the Hydrology and Hydraulics team are all civil engineers, their paths to USACE Hydrology and Hydraulics team were just as fluid as the waters they study.

"I actually originally got a zoology undergraduate degree," said Morris. "When I went into environmental engineering, I was really focused on stream restoration and open channel flow, so in my master's thesis I used USACE software, the HEC-RAS (Hydrologic Engineering Center River Analysis System) that is really the leading software in hydraulic modeling. That was my introduction to [USACE]."

Many in Hydrology and Hydraulics started their careers in other fields, whether it be agriculture engineering, bioengineering and even wastewater treatment design. Yet Morris said that because water weaves through so many engineering disciplines, if they are interested in water, USACE will have need of their talents.

Ultimately, their work—whether designing flood management systems, restoring ecosystems or managing river flow—directly impacts the safety, economy and well-being of the communities they serve.

"Everything we do comes down to impact," said Reinkemeyer. "I think we have people doing this type of work because everything we do is to help others. Whether that's flood risk, improving ecosystems or looking at life safety from the dam safety and levee safety risks, it all comes down to wanting to make a difference and to help people out where we can. We just do it in a nerdy way."

Kansas City District Hydrology and Hydraulics chief Dane Morris reviews a Hydrologic Engineering Center River Analysis System (HEC-RAS) inundation map with hydraulic engineer Erin Reinkemeyer.

Seeing is believing

By Christine E. Reindhart | Public Affairs Specialist

Project site visits provide valuable knowledge sharing opportunity

Employees leave their jobs for many reasons. Some retire while others leave to explore new career opportunities. While workplace attrition is common across industries, it can pose a challenge to those left behind, especially when decades of institutional knowledge are also lost when the experienced employee departs.

Sometimes, there can be a gap in knowledge, skills or abilities when a senior employee leaves an organization. Mack Landen, project manager with the Kansas City District, U.S. Army Corps of Engineers' Civil Works Branch, saw a wave of employee departures and new hires at the district within the last few years not as a deficiency, but as an opportunity.

Recognizing the need for knowledge sharing among both seasoned and newer employees at

Mack Landen, project manager with the Kansas City District, U.S. Army Corps of Engineers' Civil Works Branch, leads a site visit to the Swope Park Industrial Area project for employees to share their experiences and learn about the intersection of USACE civil works design and construction on May 16, 2025, in Kansas City, Missouri.

PHOTOS BY CHRISTINE E. REINDHART, PUBLIC AFFAIRS SPECIALIST

Kansas City District employees participate in a site visit to the Swope Park Industrial Area project as part of a knowledge sharing opportunity on May 16, 2025, in Kansas City, Missouri.

Reed Brown, supervisory civil engineer in the Kansas City District's Geotechnical Design and Dam Safety Section, speaks to district employees at a site visit to the Swope Park Industrial Area project as part of a knowledge sharing opportunity on May 16, 2025, in Kansas City, Missouri.

the Kansas City District, Landen decided to organize a series of project site visits at an active civil works construction project.

"Fifty percent of our district's employees are new within the last five years," said Landen. "These site visits aimed to provide younger or newer USACE employees with firsthand experience in an area they will likely encounter in their design careers."

Over the course of four weeks in May and June, around 30 employees voluntarily met with Landen and other senior technical experts at the Swope Park Industrial Area project in Kansas City, Missouri.

According to Landen, the project is a 7,000-foot ring levee, which consists of a floodwall and levee system, interior drainage system and detention pond. The project aims to provide critical flood risk reduction and ensure continued economic viability of the area.

With its final phase of construction beginning May 14, the project became the perfect opportunity for district employees to gather on site, share their experiences and learn about the intersection of USACE civil works design and construction.

"While a design may seem sound on paper, aligning it with real-world conditions is crucial for sharpening design skills, identifying potential issues and minimizing problems," said Landen. "Fostering a working relationship between design and construction can help designers refine their plans and contractors understand the engineering behind them."

Kara Cline, hydraulic engineer with the Kansas City District was one of the employees who voluntarily attended a site visit Landen organized. For Cline, who has been with the district for seven years, it was an opportunity to get out from behind her desk and get into the field.

"Getting to see active construction is important for engineers who typically crunch numbers and run models at their desks all day," she said. "It helps us become better at designing practical solutions."

As a hydraulic engineer, Cline has worked on a variety of projects including flood risk management projects, ecosystem restoration projects, dam safety projects and watershed studies. She said getting out to an active construction site and discussing the project with more senior technical experts was a valuable learning experience.

"Things don't always go according to plan out in the field, so we have to adapt and problem solve on the fly," said Cline. "Knowledge sharing is important because it improves collaboration between disciplines. We can build on each other's ideas and not have to reinvent the wheel."

For Landen, providing co-workers with opportunities to share experiences and ideas at an active civil works construction project was important not only for individual professional development, but also for the district because collaborative exercises lead to building stronger teams.

"For me, bridging this gap and ensuring both sides understand the 'why' is vital," said Landen. "I often say, 'make it make sense' and for many, seeing is believing."

Heartland Engineers inspect dams

By Lawrence Brooks IV | Public Affairs Specialist

To protect life and provide leisure

Structural engineer Sam Leimer (blue jacket), electrical engineer Jason Jestila and maintenance engineering section chief J.C. Randazzo (bucket hat), inspect structural, electrical and other instruments on the exterior of the Hillsdale Dam control tower and bridge on Tuesday, March 25, 2025.

Dams are a critical component to domestic infrastructure that provides benefits to the American citizen that are sometimes overlooked. The Kansas City District, U.S. Army Corps of Engineers, manages 18 of the nation's more than 3,000 federally owned dams, with maintenance and inspection of these engineering marvels are crucial to preventing major flooding throughout the region. That's why a team of talented engineers from the district recently spent a couple of days meticulously surveying Hillsdale Dam in eastern Kansas to ensure its operating as designed and to continue its mission for decades to come.

For our nations' first engineering force, USACE dams and the massive reservoirs of fresh water they preserve, have become an essential element of its overall mission.

Allen Chestnut is the Dam Safety program manager for the Kansas City District, whose portfolio includes 18 dams across Missouri, Kansas, Iowa and Nebraska. He said although being responsible for the maintenance and inspection of such critical infrastructure is a daunting task at times, the value his work provides is what keeps him going.

"It's interesting and the great thing about working on dam safety is we're doing important stuff," Chestnut said. "Most people don't get to work on projects of this size or magnitude and it's motivating to come to work every day when you feel like you're actually making a difference."

Recently, Chestnut and a team of highly skilled engineers from various disciplines, conducted a five-year periodic inspection on Hillsdale Dam in Miami County, Kansas, near the cities of Paola, Spring Hill and Gardner. He said each inspection the district conducts is a large collaborative process.

PHOTOS BY LAWRENCE BROOKS IV, PUBLIC AFFAIRS SPECIALIST

Hydraulic engineer Ben Johnson taking a photo at the end of Hillsdale reservoirs conduit in front of the right emergency gate on Tuesday, March 25, 2025.

"We've got geotechnical and structural engineers. We usually have somebody from water management out there. We've got our Operations Division … electrical and mechanical engineers from our Engineering Division," he said. "Even ahead of time, we've got the survey crew out there liker river engineering, doing surveying of the degradation ranges downstream of the dams."

There is also the Hillsdale Lake project staff, such as the natural resource specialist and maintenance engineers who spend months prepping the dam for inspection while ensuring daily operations continue to run smoothly.

Chestnut acknowledged that none of this work could happen without their hard work, expertise and dedication before his crew arrives onsite.

"It's a significant effort for them. They're using a crane inside the [control] tower to place the stop logs and the emergency gate to stop water flows in the conduit," he said.

Hydraulic engineer Ben Johnson (center) details some of his findings to maintenance engineering section chief, J.C. Randazzo Dozzle and hydrogeology civil engineer Conner Szarwinski after inspecting the service gate components inside Hillsdale Reservoirs conduit structure on Tuesday, March 25, 2025.

Jason Sheeley is the operations project manager for Hillsdale, Clinton and Perry Lakes in eastern Kansas. He said his project staff focused two full working days getting the emergency gates in place to ensure maximum safety for district staff entering a conduit and spillway, which has a maximum release flow rate that is approximately half the volume of an Olympic size swimming pool per second.

However, this is just a fraction of the unseen work they do before and during inspections.

"At annual inspections, they make recommendations on work to be performed. One of the significant things that we worked on was an electrical conduit running under the bridge to the control tower. It separated and we had to repair it so that they could inspect it during the periodic inspection to verify that it had been fixed," Sheeley said.

DUTY CALLS, HEARTLAND ENGINEERS ANSWER

Completed in 1982, Hillsdale Dam is an earth-fill dam located in the Osage River basin that impounds flows from Big Bull Creek for controlled release into the Marais des Cygnes River. Its authorization for use includes flood risk management, water supply and quality, recreation and fish and wildlife management.

According to USACE engineering regulation, these inspections are cyclical in nature — occurring annually; every five years for the periodic inspection and every 10 years for the periodic risk assessment.

Despite the fact the district knows these inspections are coming, Chestnut said it's still a quite an undertaking for everyone involved.

"My role with periodic inspections is requesting the budgets, setting the schedules for when we're doing the inspections," he said. "[But] the prep work is where I focus more of my time. We've got project engineers and their job is to coordinate all the pieces."

Civil engineer in the Geotechnical Design and Dam Safety Section, Julia Swanson, is one of the project engineers who Chestnut works closely with, managing all projects associated with Hillsdale Dam — including all inspections as evidenced by the 200 plus page pre-inspection packet she prepared that serves as the checklist all engineers use when inspecting dams.

She said the strict regulatory processes require that "every finding, discrepancy or improvement to the dam, whether big or small, must be recorded." This process of continued

documentation is what she described as, "the dam's living documents that have been kept since the existence of the dam."

Spanning two days in late March, the meticulous investigation was the 14th conducted on the dam since its completion. It mandates every vital component of the structure be inspected — which are the embankment, the intake control tower, the water release conduit, the stilling basin and outlet channel and the spillway.

To start, part of the inspection team traversed the reservoir by boat to examine the intake control tower's concrete, its bridge and other instruments exposed to natures elements.

While they circled the tower to document their findings, the other half of the inspection team entered the conduit to inspect the concrete and joints of each "monolith" that make up the more than 700-foot-long structure, which ultimately releases water into the stilling basin and down the nearly 1,700-foot outlet channel.

Chestnut said this is arguably one of the most critical procedures when conducting dam inspections. For this reason, there are certain safety precautions that must be met before any team member can enter.

"You lock the controls out and then you take the keys to those controls and put them in a lockbox. Then, every individual person puts a personal lock on that box so it cannot be opened, and those controls cannot be operated until everybody is out of the conduit," he said.

The lock box is accompanied by a sign-in sheet to establish a written record of accountability as well. Then, the team scoured the tunnel for what Chestnut called "squirters," or water spraying out of joints or cracks in the concrete that could easily wash fine embankment soil or other structural material into the outlet channel.

He said if these issues go unnoticed or overlooked, they could "erode the inside of the dam and lead to a [potential] collapse."

Taking center stage for the second half of the first inspection day and majority of the second, were the upstream and downstream sides of the embankment. This section of the dam stands 100 feet high and is nearly 12,000 feet in length.

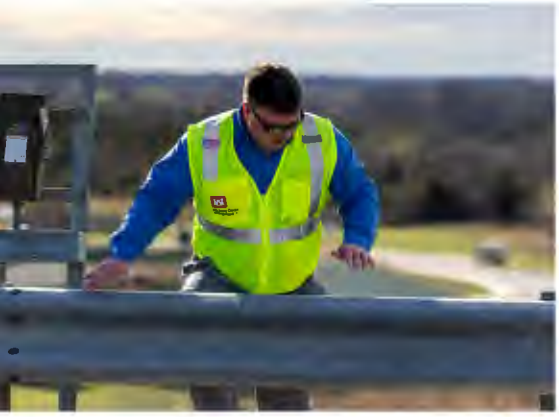
Primary features of the embankment that are inspected include the abutment contacts, the dike, the crest, the riprap and instruments like piezometers, which measure the water pressure inside the dam and foundation. This helps engineers understand the inner workings of the dam before they even set foot in it.

Zackary Young is a geotechnical engineer on the team who helped lead this portion of the inspection. He said it required many of the eyes and ears of his teammates to conduct a thorough search to uncover potential issues, some as small as animal burrows made by field mice.

"You might be looking out for slides. We're going to be looking for slopes and bulges on the embankment," Young said. "The riprap protects from bank erosion from the water. So, if that degrades, you're opening the soil up to getting hit by waves, which could unravel and lead to slope instability."

Most would think after the inspection team leaves the site, much of their work is complete. However, that's far from the case. The clock starts for an extensive 70-plus day report writing process the day after the physical inspection ends — requiring every member of the inspection team to give detailed inputs of their findings or recommendations.

This includes peer and technical level review, as well as comment periods and reviews by USACE



Top: Electrical engineer Gavin Jones crosses the bridge after inspecting outside electrical systems and its components on the downstream side of the Hillsdale Reservoir during the five-year periodic dam inspection on Tuesday, March 25, 2025.

Middle: Geologist Tyler Fox inspects the integrity of the grouted riprap on the upstream right abutment for Hillsdale Reservoirs five-year periodic dam inspection on Tuesday, March 25, 2025.

Bottom: Civil engineer Julia Swanson places a marker on a suspected animal burrow while inspecting the upstream embankment for structural integrity on Tuesday, March 25, 2025.

MOST PEOPLE DON'T GET TO WORK ON PROJECTS OF THIS SIZE OR MAGNITUDE AND IT'S MOTIVATING TO COME TO WORK EVERY DAY WHEN YOU FEEL LIKE YOU'RE ACTUALLY MAKING A DIFFERENCE."

Allen Chestnut,
dam safety program manager

leadership from the Kansas City District and beyond. Chestnut said the reporting process is useful for both USACE staff and the public if they know where to look.

"Once the report is final, it stays in the record essentially forever. The idea is future engineers will be able to read that report and understand what the condition of the project was at the time and historic issues," Chestnut said.

He added that since the full inspection report is considered "Controlled Classified Information," it cannot be viewed in full by the public. Nevertheless, using the National Inventory of Dams website, they can still view some details about the lake, such as when the last inspection was conducted or the latest revisions to the emergency action plan.

For a dam and reservoir that saw upward of 400,000 visitors annually and who spent more than $12 million within 30 miles of the USACE property in fiscal year 2023, according to the Value to the Nation statistics, it's no wonder Kansas City District engineers do their best to keep this public resource, and others they own, in prime operational condition for citizens to enjoy.

"I enjoy the impact that we get to make … providing water supply, flood risk management, hydropower, recreation … all those big missions [that] benefit the region are pretty significant," Chestnut said.

Civil hydraulic engineer William Otero uses his flashlight to jot down notes on his findings after inspecting a monolith inside the conduit structure of the Hillsdale Reservoir's outlet channel on Tuesday, March 25, 2025.

Firefighting from the air

By Taylor King | Public Affairs Specialist

U.S. ARMY TRAINS AT MILFORD LAKE

Although we are far from the height of wildfire season, the U.S. Army is making the most of an unlikely training ground: the peaceful waters of U.S. Army Corps of Engineers' Milford Lake in Kansas. This serene lake landscape also serves as a vital training location for a group of professionals drilling to save lives and property when disaster strikes. On a windy overcast morning, the hum of rotor blades filled the air as a UH-60L Black Hawk helicopter from the 2nd General Support Aviation Battalion "Fighting Eagles," part of the 1st Combat Aviation Brigade, 1st Infantry Division based at Fort Riley, swooped low over the Milford Lake project.

The helicopter, equipped with a large, bright

PHOTOS BY TAYLOR KING, PUBLIC AFFAIRS SPECIALIST

The reception area.

All photos: A UH-60L Black Hawk helicopter from the 2nd General Support Aviation Battalion "Fighting Eagles", part of the 1st Combat Aviation Brigade, 1st Infantry Division based at Fort Riley, Kansas trains in aerial firefighting techniques in cooperation with the U.S. Army Corps of Engineers' Milford Lake project.

"WE ALREADY PROVIDE A GREAT ASSET TO THE RECREATIONAL PUBLIC AND TO ALLOW THE ARMY TO USE THE LARGEST MAN-MADE LAKE IN KANSAS FOR TRAINING IS EVEN MORE SATISFYING."

Bill Whitworth, Milford Lake operations project manager.

orange heavy-duty water bucket suspended underneath, hovered less than a dozen feet over the lake, practicing the precise operation required to scoop up and quickly release large amounts of water onto wildfires. This training, coordinated between USACE and the U.S. Army, marked this crew's final drill in mastering their firefighting techniques.

"We train for execution of the mission and use these exercises to ensure our pilots and crews can operate under pressure," said 1st Lt. Benjamin Retallick, a UH-60L Black Hawk pilot assigned to the 2nd General Support Aviation Battalion. "[Milford] Lake provides a great environment where we can work on our methods."

This training has become increasingly important as the Midwest braces for a potentially intense summer fire season amid ongoing drought conditions. In the case of the Fighting Eagles, Retallick said this training is required for their upcoming support of wildfire firefighting operations as far south as Texas.

"This is really good training for our aircrews that haven't had water bucket training before," said Retallick. "This type of mission is usually one and done but this qualification we've earned sets us apart and this could become a recurring mission set for us."

Retallick said the ability to quickly and efficiently deploy aerial resources can often be the difference between a wildfire being contained or spreading uncontrollably.

"It's critical for this mission to have several qualified crews and aircraft ready to respond," he said. "Anything that increases our mission efficiency."

A KEY TRAINING TOOL

Milford Lake has proven to be an ideal location for specialized U.S. Army training. The controlled

setting is a stone's throw from Fort Riley, allowing aircrews to practice without the stressors associated with an actual wildfire emergency while also providing ease of access to U.S. Army aviation facilities.

"Having this resource available so close to the airfield maximizes our time and efforts," said Retallick. "This keeps the training less taxing on the crews and saves the aircraft a good deal of fuel and maintenance. That all helps us get the most out of our training."

The aircrews, consisting of both veteran and newly trained personnel, have been practicing the intricacies of water bucket operations—as these techniques require precise coordination between the aircrews and firefighters on the ground. The helicopter flies low over the water, hovering to fill the bucket. Once full, the pilot ascends and maneuvers the aircraft to release the water onto a simulated fire area or designated drop zone.

"In an actual emergency we will coordinate with civilian firefighting crews on the ground who will direct our operations," said Retallick. "We train to drop the water directly on the fire or ahead of the projected path in order to contain the spread."

The bucket itself is no small feat to manage either. With a capacity of up to 1,000 gallons, it weighs several tons when full. Aircrews must control the heavy load on their aircraft while also working in tight coordination with firefighters on the ground to ensure they drop the water where it is needed most.

Even the smallest mistake can have disastrous consequences to the safety of firefighters on the ground, which is why training at the lake is so vital.

THE COMMUNITY'S SUPPORT

In addition to helping the aircrews, U.S. Army training at Milford Lake also serves to engage the local community. Residents and park-goers often find themselves witnessing the impressive operations from a distance, as the helicopters often work over the water.

"It's good that we can be available to the U.S. Army as a practice area," said Bill Whitworth, Milford Lake operations project manager. "We already provide a great asset to the recreational public and to allow the U.S. Army to use the largest man-made lake in Kansas for training is even more satisfying. Milford [Lake] is a great asset for the U.S. Army and the public likes to watch and see the U.S. Army close at hand."

USACE has been supportive of the collaboration, recognizing the importance of both training and the potential benefits to the community in times of crisis.

"This bucket training benefits the training of their pilots and crew and allows us a resource if something happens [in the local communities]," said Whitworth. "Plus, it's fun to watch. So, this works for everybody."

A LIFELINE IN FIREFIGHTING

While the lake provides a much-needed space for training, it might eventually save the day in the event of a real wildfire emergency. The "Fighting Eagles" are qualified aerial firefighters, and in the case of a local wildfire, they would deploy from the lake to the wildfire's location.

But for now, Milford Lake plays a role in making sure the crew is prepared for whatever fire season may bring.

"As the wildfire season approaches, we hope that we don't have to respond to a major fire here," Retallick said. "But if we do, we'll be ready, thanks to the preparation and teamwork we've practiced here."

LIGHT UP THE LAKE

By Lawrence Brooks IV | Public Affairs Specialist

HOW LOCAL BUSINESS LEADERS TURNED A TINY SECTION OF POMME DE TERRE LAKE INTO A WINTER WONDERLAND

For majority of the month of December and ending on New Year's Eve, Dam Site Park at Pomme De Terre Lake in Hermitage, Missouri, transforms a small section of the massive reservoir's 113 miles of continuous shoreline into a majestic display of holiday cheer.

Sponsored by the Pomme de Terre Chamber of Commerce in partnership with the U.S. Army Corps of Engineers, Kansas City District, the event is called "Light Up the Lake."

For the families of Hickory, Polk, St. Clair and other surrounding counties who come to the drive-thru style display, it's the perfect opportunity to visit a familiar place to bask in the spirit of Christmas with their loved ones.

"This is wonderful. It's one of the best drive-thru's we've ever been to," Tom Huff said, who runs a farm in Fair Grove, Missouri, about an hour away. He said he heard about the event on Facebook and decided to come by while visiting a friend in Hermitage.

When speaking with his wife about the displays sponsored by local churches and religious non-profits in the area in what he described as a "spiritual" experience, he lamented that this won't be the last time they visit before the holidays are over.

"I really like it. We may get the grandkids and be back before Christmas. I think they'll love it," he

PHOTOS BY LAWRENCE BROOKS IV, PUBLIC AFFAIRS SPECIALIST

said. "It exceeded my expectations and it's wonderful that [USACE] allowed this to happen."

Huff and his wife were in just one of the more than 120 cars that drove through on the opening night of Dec. 4 to see the many displays strategically setup along the winding road leading in and out of Dam Site Park's campground.

Chip Shaddox is the treasurer for the Pomme de Terre Chamber of Commerce and owner of Hickamo, a local truckstop and café located in Wheatland, Missouri, nearly 10 miles east of the lake on U.S. Highway 54.

As the primary organizer for display sponsors, he said planning for the event can be a heavy lift for their five-man team. But it's worth it since community members chip in to help with the setup starting in early November, and the teardown, which starts on New Year's Day.

"This year we were able to get Hermitage High School to bring out 20 kids as volunteers and they helped put up the 35 arches you see all the way around the park. Then there's a tunnel over there, which took about six hours to complete," Shaddox said.

Since "Light Up the Lake" was founded four years ago, he said the goal is to make the event bigger and bigger each year to bring more tourists to Pomme de Terre Lake during the slow winter months.

Based on appearances, it's grown exponentially and quite faster than Shaddox and the local chamber expected.

"We started with about 28 people the first year and we also have nonprofits that set up displays. I think we had about 60 the second year and 75 the third year. This year, we have 95 participants," he said. "One of these days I hope they get an accurate count, but I would say definitely over a million lights."

The 95 displays contain the usual Christmas characters like The Grinch, Santa Claus, reindeer and Frosty the Snowman. Nevertheless, since each is associated with themes related to the individual sponsor or business, every exhibit has something different for visitors to get excited about.

The Pomme de Terre Lake project office, located directly across from the dam's iconic control tower and the only one of its kind built directly into limestone, even participated in the holiday display fun, according to natural resource manager, Shannon Henry.

"Ours promotes water safety here at the lake. So, we have some lifejackets and water safety banners. But then we also have a camper because we provide the recreation opportunities here at the

Top: Chip Shaddox puts the finishing touches on the Christmas lights lining the road in Dam Site Park just hours before opening night for the "Light Up the Lake" Christmas light show at Pomme De Terre Lake on the morning of Dec.4, 2024.

Left and middle: A street view of several of the sponsored displays built by Hickory County businesses and nonprofits for the "Light Up the Lake" Christmas light show at Pomme De Terre Lake on Dec. 4, 2024.

Toni Childers and Hazel Mattison greets families and community members at the gate of the "Light Up the Lake" Christmas light show at Pomme De Terre Lake on Dec.4, 2024.

The view of the entrance to Dam Site Park on the evening of Dec. 4, 2024, as the first cars begin to get their first look at the "Light Up The Lake" Christmas light show at Pomme De Terre Lake.

> **"THIS IS WONDERFUL. IT'S ONE OF THE BEST DRIVE-THRU' S WE'VE EVER BEEN TO."**
>
> Tom Huff, Fair Grove, MO farmer and Light Up the Lake visitor

lake," she said.

Park rangers Mitch Jackson and Devin Holt designed the USACE display, which also features a snowman family made from used tires.

Although the amount of people using the lake for water recreation decreases in the winter months, hunting recreation increases while fishing remains consistent, according to Jackson. These trends are why water safety remains paramount to USACE's mission.

"The last thing we want to do is get a call, especially this time of year with colder water, hypothermia sets in very quick, and it doesn't take long for you to become unresponsive," Jackson said. "So, water safety is something that we try to enforce and encourage all year round."

Open from 5:30 to 9:30 p.m. every night, "Light Up the Lake" is free to the public to enter the gate and drive through, however, donations are encouraged for anyone who can afford to give.

"A different nonprofit runs the entry gate each night and they get to split half the profits with the chamber," Shaddox said. "It feels good to help other people around Christmas time and it's something to do for people around here, so they don't have to drive to Branson to see a light display."

In total, 28 nonprofits in and around the Hickory County area partnered with the Pomme de Terre Chamber of Commerce. Four Legs and Fur Animal Society is one, and they worked the gate on opening night.

Toni Childers is the treasurer for the animal society, and she brought nine-year-old Hazel Mattison along to join in the festivities, whose family adopted three cats from Four Legs and Fur. Childers said it's a great opportunity to support the communities that have supported their organization.

"It's a fundraiser and we love it. We have a good time, we get to dress up, be silly, bring candy and talk to people. We've been here since the first year and I don't ever see us not doing it," she said.

In addition to the light displays, "Light Up the Lake" also has hayrides on select nights and old Saint Nicholas takes a break from his busy schedule to take pictures with families every Saturday night.

While the nonprofits use their portion of the proceeds to help keep their organizations afloat during the off-season, the Pomme de Terre Chamber of Commerce uses theirs to fund another major event at Pomme De Terre Lake during peak tourism season.

"Last year we had 3,500 cars come through and for the chamber that raised about $13,000 that went toward the fireworks show for Independence Day," Shaddox said. "It's [USACE] land, but the public gets to use it and see what [USACE] does to help us. So, having all these opportunities to use this stuff is really awesome. We appreciate everything they do for us."

Love, Carissa

By Christine E. Reinhardt | Public Affairs Specialist

Granddaughter's legacy is saving lives one lifejacket at a time

Shannon Shaw never thought she'd be part of a growing group of grieving families who've lost a loved one by drowning. In 2015, her granddaughter, Carissa, tragically drowned at the age of nine while swimming in a river. She was not wearing a lifejacket. Despite her unimaginable grief, Shaw decided to dedicate her life to preserving Carissa's enthusiasm for life by helping save others.

Photos left to right:

Shannon Shaw, CEO and founder of the Love, Carissa Corporation founded in honor of Carissa, her granddaughter who tragically drowned in 2015 at age nine.

Shannon Shaw shows Carissa's handwriting, which is printed on each loaner lifejacket her non-profit provides at loaner boards located at Perry Lake's boat ramps.

Since 2019, Perry Lake in northeast Kansas has partnered with the Love, Carissa Corporation to provide free loaner lifejackets to recreators. There have been no drowning related fatalities at Perry Lake since the partnership began.

Cody Smothers, natural resource specialist with the Kansas City District, U.S. Army Corps of Engineers, met Shannon Shaw in 2018 when she proposed the non-profit partnership with Perry Lake to provide free loaner lifejackets.

Shaw is the CEO and founder of the Love, Carissa Corporation, a non-profit committed to preventing drowning fatalities by raising awareness and providing resources like lifejackets and financial assistance for swimming lessons. According to Shaw, she doesn't want to lecture people about water safety. Instead, she wants to provide them with resources to stay safe.

"I opened [the Love, Carissa Corporation] to honor my granddaughter," said Shaw. "I don't want anyone else to experience what I experienced and what my family experienced."

In 2018, Shaw approached U.S. Army Corps of Engineers staff at Perry Lake in northeast Kansas with a proposition. She pitched a partnership between the Love, Carissa Corporation and Perry Lake to install loaner lifejacket stations at each of the lake's boat ramps. Cody Smothers, natural resource specialist at Perry Lake, heard Shaw's proposal and knew it was a no brainer.

According to Smothers, Perry Lake had loaner lifejackets before Shaw proposed the partnership. But, partnering with the Love, Carissa Corporation would help expand the program across the lake's footprint.

"We have a few

PHOTOS BY CHRISTINE E. REINHARDT, PUBLIC AFFAIRS SPECIALIST

lifejacket loaner boards at all of our lakes in some way. For us, it was maximizing the amount of people that can have access to it," said Smothers. "Our conversation [in 2018] could have been 10 minutes and it still would have been a 'yes' for us."

Officially implemented in spring 2019, Love, Carissa lifejacket loaner stations can be found at all six of Perry Lake's USACE-operated boat ramps and at two of the state-operated boat ramps. Each loaner board features information about water safety, and both youth and adult sized lifejackets are available to borrow for free. Primarily funded through donations, the Love, Carissa Corporation supplies the lifejackets.

The loaner stations are hard to miss, located prominently at each boat ramp. Carissa's story is featured on each board and her handwriting depicting "Love, Carissa" is on each loaner lifejacket. Described as joyful with a big imagination, Carissa and her bright smile greet recreators at every loaner station.

"Because of the design, everybody has to walk past [the loaner boards,] so it takes two seconds to run over there, grab a lifejacket and then get out on the boat," said Smothers.

And people have been grabbing the lifejackets.

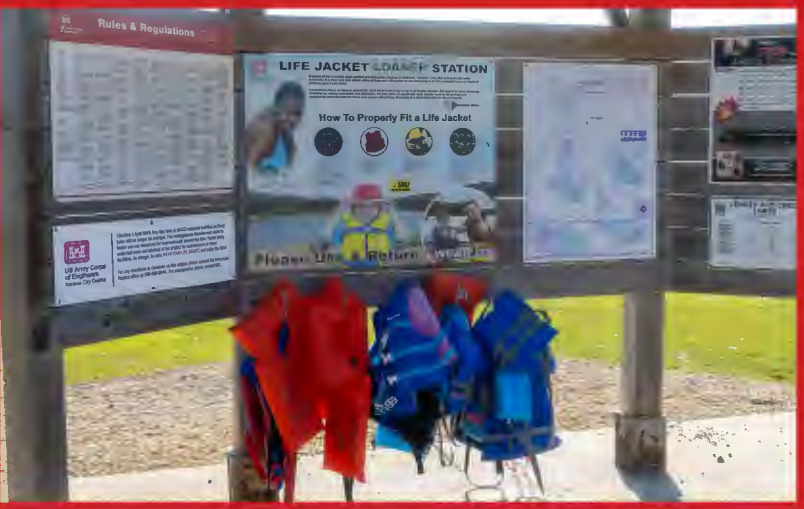
"Since we implemented the program, we haven't had a drowning related fatality at Perry [Lake,]" said Smothers. "[USACE] is the top provider of water-based recreation. We need to have this partnership."

Because of the success of the partnership at Perry Lake, Shaw and Smothers are working together to expand the program to neighboring Clinton Lake, another USACE owned and operated lake in northeast Kansas. Smothers hopes to have Love, Carissa loaner stations at Clinton Lake by summer 2026. He said by expanding the program to other locations, more people will have access to safe, positive experiences at USACE lakes.

"I'm an agent of [USACE,] but I'm also a human being, so I don't want families to lose people," said Smothers. "I got into this job to be able to provide recreational experiences to people, so I want people to come out here, have a good time and go home safely."

"I DON'T WANT ANYONE ELSE TO EXPERIENCE WHAT I EXPERIENCED AND WHAT MY FAMILY EXPERIENCED."

Shannon Shaw, grandmother of Carissa, and CEO and founder of the Love, Carissa Corporation.



Shaw's partnership with USACE is not only keeping Carissa's memory alive but also saving lives. She hopes expanding the program to Clinton Lake will have the same effect on drowning fatalities seen at Perry Lake.

"Natural bodies of water are way different than a swimming pool. They're unpredictable. [I hope people] continue to use [the lifejackets] and just kind of be aware. Our program is valuable when it's being properly used," said Shaw. "For me, it's just not having another child or person lost from something that can be prevented so easily."

For more information about the Love, Carissa Corporation and how they are helping save lives one lifejacket at a time, visit Scooters-Waters.com/about-us.

PROTECTING OUR PAST

By Taylor King | Public Affairs Specialist

U.S. Army Corps of Engineers archaeologists at work

Beneath the surface of infrastructure projects and flood control measures, a quiet but vital mission is underway. Federal archaeologists are uncovering hidden pieces of history as they work to preserve cultural heritage during modern development. From ancient fossils to long-forgotten Native American sites, these archaeologists are the stewards of our nation's past, ensuring that progress does not erase the stories that came before.

Preservation and exploration of local history is a critical and often overlooked responsibility of federal organizations. The National Historic Preservation Act of 1966 requires any project that might impact cultural or historic sites to conduct an archaeological evaluation. At the U.S. Army Corps of Engineers, archaeologists are dedicated to uncovering and protecting our cultural heritage, using construction and engineering projects as opportunities to discover artifacts and sites that are key to understanding our shared past.

Whether it be infrastructure construction, environmental rehabilitation or military support, USACE archaeologists, working closely with engineers, environmental planners, tribes and state historical resource organizations are tasked with ensuring USACE projects do not harm historically significant sites.

"We're federally mandated to act as stewards – to consider, protect

PHOTOS BY TAYLOR KING, PUBLIC AFFAIRS SPECIALIST

and actively manage significant historic properties under federal management," said Phil Alig, a USACE archaeologist at the Kansas City District. "Under NHPA we have to consider adverse effects for any action that involves that federal land, federal funding, or federal permitting."

This consideration is crucial, as many USACE projects are in areas rich with historic and cultural significance. As with any engineering effort, water management and environmental restoration projects can often alter landscapes that have long been home to Native American tribes or later colonial settlements. USACE archaeologists serve as custodians of these historical resources, working to mitigate damage and, when possible, preserve or relocate valuable cultural remnants.

"Basically every [USACE project] has to go through our shop," said Alig. "We don't have a heavy touch, but we touch everything we do, from planning to military construction to hazardous, toxic and radioactive waste removal."

Archaeological work with USACE is far from straightforward and that light touch is a meticulous process combining fieldwork, research and expert analysis and evaluations. USACE archaeologists face challenges ranging from time constraints to environmental factors and legal complexities, but whenever USACE plans a new project in an area that could be archaeologically sensitive, USACE archaeologists roll up their sleeves.

It all starts with background research.

USACE archaeologist Dr. Gina Powell said the first step for a USACE archaeologist preparing to survey a site is to hit the books. Using online databases maintained by each states' historical preservation organization, tribal historical preservation officers, historical archives, land transfers, maps and their own extensive experience, USACE archaeologists will cross-reference various sources to determine the likelihood of finding unsurveyed historical sites within the project area.

"We use historical documents and maps, combined with our own expertise," said Powell. "We'll look at the land itself and previous knowledge of where sites tend to be found as well. For example, the terraces above the river are more likely to have sites compared to an active floodplain."

Once a prospective location is identified, the archaeology team starts with a survey. Using a variety of tools — from traditional shovels and sifting screens to digital historical archives — they assess whether the land has any historical resources. If they uncover artifacts or evidence of an ancient settlement, it triggers a more detailed documentation and mitigation process.

While these historical sites range from Native American tools to campfire soot stains to entire buildings, when historical traces are found, it is the responsibility of USACE to reduce impact to the site as much as possible.

"Avoid, minimize, mitigate," said Alig.

The easiest way to steer clear of adverse effects to historical sites is simply for USACE to avoid them when working a project, Powell said. When this is unavoidable, the team will focus on minimization, or simply protecting the historical property as much as possible from damage during construction. The final option is mitigation, or compensating for any remaining impacts, in many cases either by excavation or through extensive academic documentation of the site prior to its removal.

Despite many challenges, there are triumphs. The unearthing of a centuries-old tribal site, the discovery of ancient fossils, the repatriation of lost artifacts or the preservation of a historic structure helps piece together forgotten

USACE archaeological technician Storm Henry screens a shovel test pit at Rathbun Lake, Iowa.

Top left and right: USACE and Missouri Archaeological Society archaeologists manually search for artifacts using the surface survey method. Surface surveys are the most common method to search for artifacts on disturbed ground and consist of archaeological crews lining up and sweeping open areas searching for artifacts. This survey was completed under USACE supervision as it is unlawful to collect artifacts on federal land.

Bottom right: USACE archaeologists Gina Powell and Phil Alig screen a shovel test pit for artifacts with USACE park rangers at Rathbun Lake, Iowa.

"WE TOUCH EVERYTHING WE DO. FROM PLANNING TO MILITARY CONSTRUCTION TO HAZARDOUS, TOXIC AND RADIOACTIVE WASTE REMOVAL."

Phil Alig, a USACE archaeologist at the Kansas City District.

chapters of American history.

These efforts reflect USACE's commitment to cultural resource management and collaboration. As part of that commitment, USACE has developed strong partnerships with tribal nations, local communities and state and federal agencies, all collaborating to ensure that historical resources are preserved and respected.

"We have 54 tribes involved along the Missouri River that have some tie to the river," said Alig. "There are four resident tribes in the district: the Sac and Fox Nation of Missouri, the Kickapoo Tribe, the Iowa Tribe of Kansas & Nebraska and the Prairie Band Potawatomi Nation. We also work very closely with The Osage Nation as the Missouri [River] is their ancestral land. We also consult with any tribes that have interests in our area, including tribes that were relocated during the Trail of Tears, such as the Cherokee and Delaware."

Tribal sites can range from ancient camp sites to human remains that must be repatriated to their home nation. The USACE archaeologists are responsible for excavating, preserving and interpreting these finds. Each discovery adds a piece to the puzzle of how Native American tribes and early settlers lived, worked and interacted with their environment and each other.

"As a federal agency, USACE has a responsibility to consult with Native American tribes on our undertakings," said Tim Meade, USACE archaeologist and Kansas City District tribal liaison. "Part of that responsibility is working with tribes to provide stewardship for Native American archaeological sites and consult with them on the effects, if any, that our projects will have on them."

Through these efforts, USACE archaeologists help preserve the stories of America's many diverse peoples — Native American tribes, early Euro-American settlers and the many others who have all contributed to the rich mosaic of our nation's shared history.

USACE is not only building our future, but also protecting our past, and USACE archaeology teams are guardians of our history, ensuring that our collective past, in all its complexity, is not forgotten.

PHOTO BY RICHARD WEIXELBAUM

Answering the call

By Lawrence Brooks IV | Public Affairs Specialist

Kansas City District volunteers bring expertise, compassion to national disaster response

Since the beginning of fiscal year 2025, more than 80 employees from the Kansas City District, U.S. Army Corps of Engineers, have deployed across the country to support recovery efforts following devastating natural disasters.

These deployments included locations such as southern California — where multiple wildfires burned more than 57,000 acres between Los Angeles and San Diego County in January 2025, and western North Carolina, which was ravaged by Hurricane Helene in fall 2024, along with several neighboring states.

USACE's ongoing missions in both places reflect the district's culture of volunteerism and readiness. For those who serve, the work is not just professional, it's deeply personal.

"It's a great feeling knowing that the organization is able to provide this kind of help because without it, I don't know how the recovery could be possible," said safety and occupational health specialist Brandon Beckman, who left for a 30-day deployment to North Carolina on July 16, 2025. "The people there were so appreciative … some were in tears of joy as the lights and power came back on."

Beckman volunteered after seeing an internal call for help. During his first deployment to Puerto Rico in 2018 following Hurricane Maria, he served as a quality

assurance inspector on a long-term power restoration mission.

Now, on this assignment, he will act as a safety specialist for debris cleanup operations — a demanding role requiring long hours and constant hazard mitigation. The 12-hour workdays are something he says every volunteer should be prepared for before leaving the comfort of district headquarters.

"The best thing for me to prepare for a mission like this is support from family, friends and co-workers. They provide the encouragement and support I need to help mentally prepare," he said.

Disasters like Hurricane Helene and the Los Angeles wildfires have shown the value of the district's emergency response capabilities and the dedicated people behind them. But more than that, they have showcased the unwavering commitment and heart of volunteers who choose to deploy thousands of miles from home to help their fellow citizens begin to rebuild.

"It is a great feeling knowing that the organization can provide this kind of help because without it, I don't know how the recovery could be possible. I do feel like those affected by the disaster appreciate it very much and I've seen that firsthand. Those working the mission were viewed as almost heroes to the survivors," he said.

BUILDING A CULTURE OF SERVICE

The Kansas City District has a long-standing reputation for fielding experienced personnel during emergency events. For Jud Kneuvean, branch chief for the Readiness and Contingency Office, the district's strength lies in its people.

"We've built an organization where people want to serve," he said. "We have people raising their hands over and over again."

Kneuvean, who recently left for another deployment to the Los Angeles region, emphasized that while technical expertise helps, it's not required to volunteer. To him, the most important value is having a mission-first mindset that truly motivates you to make an impact.

"If you have the right character, we can train you. It's all about being ready to deploy, knowing the environment will be tough and still saying yes," he said.

That willingness has been especially evident this year as record-breaking floods, wildfires and hurricanes have impacted communities across the country. Volunteers from the Kansas City District filled a wide range of roles — from safety oversight and debris removal to mission planning and quality assurance.

"People find meaning in this work," Kneuvean said. "They see the direct impact of what they're doing. In many cases,

PHOTO BY BRANDON BECKMAN

Disaster Response operations take place in Puerto Rico in the aftermath of Hurricane Maria in 2018. To date, the Category 5 storm it's the deadliest and costliest Hurricane to ever hit the U.S. Territory. More than 3,000 people died from Hurricane Maria.

PHOTO BY RICHARD WEIXELBAUM

Veterans of the Kansas City Districts Debris Planning and Response Team, train new volunteers during the Marshall Wildfire in Boulder County, Colorado.

they're helping people on the worst day of their lives — and helping them find a path forward."

Rick Weixelbaum, a senior emergency management specialist and U.S. Army veteran, recently returned from a deployment to Asheville, North Carolina. He said the district's volunteers always go above and beyond to get things done efficiently and within time constraints.

But it's the people standing behind them to support the growing demands their professions require who deserve an equal amount of credit.

"I would be remiss in my duties if I didn't talk about the families that support our volunteers. The loved ones that the volunteer leaves behind, they have to tend to the daily work of being the homeowner or being the mother, the teacher or the father," Weixelbaum said, who himself admitted to going on nearly 20 deployments since joining the district a decade ago. "So, all those sacrifices are truly worthy of recognition … we greatly appreciate the contributions of those families."

Reflecting on his own experiences, Beckman summed up the job in one word: Rewarding.

"If this job helps provide assistance in any way toward recovery, then that's a very rewarding feeling to me," he said. "I highly encourage anyone who hasn't volunteered before to sign up — it's truly an unforgettable experience."

BATTLING DISINFORMATION ON THE GROUND

While mission success relies on coordination and technical execution, it increasingly also depends on the district's ability to counter false narratives, misinformation and disinformation spreading on social media — an emerging challenge in disaster response.

"Disinformation is something we are dealing with more and more," said Weixelbaum. "It affects trust. If the public doesn't understand who's in charge or why something is taking time, they start to believe what they read online."

According to the Merriam-Webster dictionary, disinformation is defined as, "false information deliberately and often covertly spread (as by the planting of rumors) in order to influence public opinion or obscure the truth." Misinformation has a similar definition; however, a distinction is made when an attempt to deliver new information that could be bad, is not deliberately misleading.

Weixelbaum recalled instances in which false claims about delays, contract decisions or eligibility for aid led to

The Kansas City District's volunteer force in Asheville North, Carolina, which received some of the heaviest destruction from Hurricane Helene in the fall of 2024. Causing an estimated $78.7 billion in damages, it is the fifth costliest storm on record for the Atlantic Ocean. 108 people lost their lives and it's the highest death toll of the seven states the storm passed through.

PHOTO BY RICHARD WEIXELBAUM

confusion and in some cases, anger among local populations and the broader public who lived in other regions of the country. False claims spread not because of USACE's actions, but because certain forms of misinformation and disinformation spread faster than the facts.

"We're boots on the ground and people assume we can fix everything immediately. When things don't happen fast enough, they look for someone to blame," he said." And if they've seen a post online saying we're not doing our jobs, it makes it that much harder to build rapport and get the work done."

To counter this, communication with local leaders and the public has become just as important as the physical infrastructure. USACE teams hold regular briefings with affected communities, when possible, to share accurate information and provide progress to maintain public confidence.

"Transparency is key," Weixelbaum said. "People need to see that we're here, we care and we're doing everything we can — even when it's not visible right away."

Kneuvean, who has been responding to disasters in the district and beyond since The Great Flood of 1993, agrees about the importance of transparency with the communities they enter.

Still, he acknowledged that the information landscape will continue to change with technological advancements to systems like artificial intelligence — which could potentially make their jobs as communicators more challenging.

"All the planning that we do, even at the speed that we can move, it only takes one individual out there posting a video or inaccurately describing what they're seeing or what they think they heard, to totally disrupt our momentum," he said.

IT'S A GREAT FEELING KNOWING THAT THE ORGANIZATION IS ABLE TO PROVIDE THIS KIND OF HELP BECAUSE WITHOUT IT, I DON'T KNOW HOW THE RECOVERY COULD BE POSSIBLE."

Brandon Beckman, safety and occupational health specialist.

PREPAREDNESS STARTS AT HOME

As disasters grow in frequency and intensity, Beckman offered advice for individuals looking to protect themselves and their families.

"Have a plan, review it with your family and keep a disaster supply kit ready," he said. "You also need to stay informed with accurate alerts."

He emphasized that preparation not only helps families stay safe, it allows emergency responders to focus resources where they're needed most.

According to Weixelbaum, the more experience on the frontlines to see the unique devastation each storm, fire or flood brings, the more prepared he is and that's the best advice he can offer to fellow citizens who live in regions more prone to disasters than others.

"I find myself taking more active roles to not have my family have to endure some of the hardships that some of the folks that we're helping survive these tragedies," he said. "So, having the plans with your family is key. It can be as simple as having a dedicated weather tracking tool, or establishing a rally point for you family to meet once disaster strikes."

From emergency power restoration to debris safety oversight and interagency coordination, the Kansas City District continues to demonstrate USACE's enduring commitment to national resilience. And with every volunteer deployment, the team grows stronger, more capable and more determined to serve.

PHOTO BY LAWRENCE BROOKS IV

Eugene "Jud" Kneuvean, branch chief for the Kansas City District's Readiness and Contingency Operations Division in his office the day before he departed for a scheduled deployment to Los Angeles, California, in response to the multiple wildfires that decimated parts of the city and county back in January 2025.

BLUE-SKY DAY TRAINING HELPS RESPONDERS PREPARE FOR FUTURE FLOOD EVENTS

By Christine E. Reinhardt | Public Affairs Specialist

Members of the Missouri State Emergency Management Agency practice filling sandbags with a sandbag machine during a training demonstration as part of SEMA's regional coordinator meeting on Sept. 25, 2025, in Jefferson City, Missouri.

Natural disasters don't care about chain of command or what roles and responsibilities lie with which local, state or federal government agency. The destruction caused by natural disasters can happen anytime and anywhere. So, having coordinated preparedness plans at all levels of government is vital for effective response when these events inevitably occur.

On a sunny, temperate day in middle Missouri, dozens of emergency management personnel convened for a two-day event aimed at doing just this – discussing policy, operations, recovery and hands-on training for a variety of disaster scenarios. The Missouri State Emergency Management Agency hosted a regional coordinator meeting Sept. 23 and 24, 2025 in Jefferson City, Missouri, during National Preparedness Month.

Mike Dulin, emergency management specialist with the Kansas City District, U.S. Army Corps of Engineers attended the meeting. Dulin manages the district's Flood Control and Coastal Emergencies Program and represented USACE at the regional coordinator meeting.

"USACE was invited because we play a critical role supporting states during major disaster declarations, especially during floods when state resources can quickly become exhausted," said Dulin.

At the two-day event, Dulin and other Kansas City District staff provided instruction on flood-fight techniques, to include how to operate a sandbag machine and build rapid flood barriers like sandbag levees and ring levees. But USACE's role during flood events goes way beyond filling sandbags. According to Dulin, before a flood event, USACE's role is focused on preparedness.

"We coordinate with state and local responders, train our staff and our partners and make sure flood-fight supplies and materials are stocked and ready for rapid response," he said.

During a flood event, USACE stands ready to provide local, state and tribal partners with assistance, which comes in two forms: technical

PHOTOS BY CHRISTINE E. REINHARDT | PUBLIC AFFAIRS SPECIALIST

Mike Dulin, emergency management specialist with the Kansas City District, U.S. Army Corps of Engineers provides sandbag training to members of the Missouri State Emergency Management Agency as part of SEMA's regional coordinator meeting on Sept. 25, 2025, in Jefferson City, Missouri.

Left: Members of the Missouri State Emergency Management Agency practice building a sandbag wall during a training demonstration as part of SEMA's regional coordinator meeting on Sept. 25, 2025, in Jefferson City, Missouri.

Below: A sandbag machine is ready for a training demonstration as part of the Missouri State Emergency Agency's regional coordinator meeting on Sept. 25, 2025, in Jefferson City, Missouri.

and direct.

"Technical assistance is advising on engineering methods to ensure performance of flood risk management systems, inundation mapping and flood modeling," said Dulin. "Direct assistance is providing supplies and equipment … or contracting for flood risk management projects."

Lastly, after a flood event, USACE is primarily responsible for restoring damaged levee systems to their pre-flood condition through the Levee Rehabilitation Program, Dulin explained.

From providing training to levee rehabilitation, USACE plays a vital role before, during and after a flood event. While all stages of the flood-fight are important, close coordination between all levels of government and emergency responders is equally critical.

"From a public safety perspective, events like the regional coordinator meeting build readiness," said Dulin. "We're fortunate in the Kansas City District to have strong relationships with our state partners. Working together, understanding each other's roles and combining our capabilities improves life safety and protects public infrastructure – our top priorities."

For the Kansas City District's area of responsibility, May and June are typically the months with the most rain. However, Dulin emphasized flooding can happen year-round, which is why it's important for staff to participate in readiness training no matter what month it is.

"This training is vital because it gives responders the skills they need before the water rises," said Dulin. "Training on a blue-sky day is always better than learning in the middle of a crisis."

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