

Falls City Engineer

U.S. Army Corps of Engineers Louisville District

September/October 2017

Volume 9, Issue 5

www.lrl.usace.army.mil

Corps lakes host natural
resources events





Falls City Engineer

Vol. 9, Issue 5

District Commander
Col. Antoinette Gant
Public Affairs Chief
Todd Hornback

Send articles to Louisville District
Public Affairs office at:
sarah.r.mattingly@usace.army.mil

U.S. Army Corps of Engineers
CELRL-PA
P.O. Box 59
Louisville, KY 40201-0059

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



*On the cover: Caesar Creek Lake
Ranger Taylor Guay and a visitor
release a tagged monarch butterfly.
(USACE photo by Paul Mato)*

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

Commander's Comments

Happy New Fiscal Year!

In Fiscal Year 2017, the Louisville District obligated nearly a billion dollars in more than 2,000 contracting actions. This was no easy task. Your contributions to the district regardless of where you serve are what made it all possible. In the face of obstacles, you remained diligent to the vision and mission of our district, division and enterprise. Thank you for always giving your best!

Speaking of obstacles, Locks and Dam 52 has given us our share of challenges. The antiquated structure can't be replaced soon enough. This problematic dam is in the worst possible spot on the river where more than 80 million tons of grain, coal, fuel and other goods, valued at more than \$22 billion traverse. We continue to monitor the situation and are aware of the second and third order impacts to the economy as a whole. The good news is Olmsted remains on schedule for completion in 2018. Special thanks to our operations division along with contracting and office of counsel for the work they have done and will continue to do to meet the requirements necessary to keep the Ohio River open.

Disasters have been no stranger over the past few months. Our district has been called upon to support efforts in Texas, Florida, and now the Caribbean (Puerto Rico and U.S. Virgin Islands). Twenty-two of our teammates are currently deployed with more scheduled to head out in the coming weeks, including Deputy District Engineer Linda Murphy. The need for assistance is great and will remain for some time. Continued support from the district is



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

vital to the effort, and I encourage you to be a part of the response team if called upon.

Finally, as we enter into the season of thanksgiving, thank you for your dedication, loyalty and commitment. 2018 brings many opportunities for our district and I am excited to serve as your commander as we take these challenges head on.

Remember... We are Building Strong and Taking Care of People!

Col. G

Contents

Corps lakes host natural resources events	3
Navigation resumes after closure at Dam 52	4
Louisville District builds new homes at Rock Island	5
School in session at Kingsolver Elementary	6
Louisville debris experts aid hurricane recovery	7
District supports Blue Roof mission in Irma's wake	8
Air Force Reserve earns kudos at end of year	9
Full Facility Restoration complete at Fort Totten	9
Waugoshance remedial investigation underway	10

Corps lakes host natural resources events



Ranger Mike Perrin and citizen scientists explore the macro-invertebrates found in the Sandy Run Creek below the dam at Caesar Creek Lake, Waynesville, Ohio.

Carol Labashosky, public affairs

Many U.S. Army Corps of Engineers, Louisville District, lakes held their annual trash cleanups in support of the National Public Lands program in September.

Here are a few highlights from the events. More activities are planned throughout the fall. Lake cleanups and environmental programs occur every month led by lake personnel.

Clif Kilpatrick, Louisville District lakes manager, said, "It's a good way to establish partnerships and connect with school groups and environmental groups."

At Barren River Lake, Glasgow, Kentucky, the 30th Annual Trashmasters Lakeshore Cleanup was held Sept. 16 in conjunction with Friends of Barren River Lake and the Barren River Lake State Resort Park. The event was coordinated by Ranger Holly Myers, with all project personnel onsite to assist with the event. There was a total of 400 volunteers that participated in keeping Barren River Lake beautiful. There were also 36 pontoons to shuttle volunteers from the ramps to the shoreline to collect trash. In all, 584 bags of trash and 41 tires were collected.

Green River Lake, Campbellsville, Kentucky, hosted its 31st Annual Lakeshore Cleanup Sept. 16. Approximately 234 volunteers consisting of various school

groups, Scout groups, athletes from Campbellsville University and Lindsey Wilson College, and other community members participated in cleaning up the lake. Their efforts resulted in 159 bags of trash, 26 tires and various other large items.

Monroe Lake, Bloomington, Indiana, had its annual cleanup Sept. 10, with

partners Indiana Department of Natural Resources and the U.S. Forest Service. Seventy volunteers collected trash and recyclables. Monroe Lake Operations Manager Dave Cable, Park Manager Shannon Phelps, Park Ranger Roger Blankenship, and Maintenance Worker Chad Shultz operated boats and carried volunteers to conduct shoreline cleanup.

The Patoka Lake, Patoka, Indiana, cleanup event had 150 volunteers participating. Forty 55-gallon bags of trash were removed from the lake.

On Sept. 30 Buckhorn Lake, Buckhorn, Kentucky, staff held its National Public Lands Day event. Volunteers from the community came together to make improvements to the nature trail.

Caesar Creek Lake, Waynesville, Ohio, held its 9th annual Bio Blitz September 22-23. Experts presented programs on topics such as invasive species, moths, mammals, and other natural resources subjects. Rangers from the entire Miami River Area came together to support the activity. Rangers involved were Kim Baker, Taylor Guay, Jessica Zimmer, Samantha Bachelder, Kaela Rupp, Spencer Beard, Mike Perrin and Lake Manager Jim O'Boyle along with local experts, and 42 citizen scientists. They identified many species of life around the park for this 24-hour period. Individual programs were held on fish, trees, wildflowers, birds, moths, bats, and fungus.



Caesar Creek Lake Ranger Kim Baker explores pond life while the citizen scientists record identified species.

Dam 52 back in business following closures

Carol Labashosky, public affairs

After intermittent closures at U.S. Army Corps of Engineers Locks and Dam 52, Brookport, Illinois, the main lock chamber is now back in service and open to navigation traffic.

Locks and Dams 52 is a low lift wicket dam built in 1928 consisting of 487 timber and steel wicket gates adjacent to one another stretching the width of the Ohio River at mile marker 938.9. During periods of high water navigation traffic transits over the lowered wicket gates, but during low water, the gates must be raised individually to impound water creating a navigable depth from Locks and Dam 52 to Smithland Locks and Dam, Kentucky Lake and Lake Barkley.

The first closure was from Sept. 6, 2017, through Sept. 14. The navigation pass was closed to navigation traffic while project personnel raised the wicket dam. During the raising event there was a five-wicket hole encountered. Due to the increased velocity around the end of the dam, project personnel were unable to continue raising the wickets. As the river elevations fell, and with decreased water velocity, project personnel were successful in raising wickets beyond the hole. Once the wickets were raised and a navigable pool was impounded, navigation traffic began to use the lock chambers.

To aid in repairs, a rock dike was constructed above the wicket hole in the navigation pass of the wicket dam. Working



The Corps has built a rock dike, which will protect divers as they replace wickets in Dam 52.

divers will replace the wickets when the wicket dam is lowered due to the natural rise of the river.

The second closure was from Oct. 8 through Oct. 14. Due to the rise of the river, the wicket dam was over-topped and the maximum locking elevation was reached on Oct. 8. River elevations returned to an appropriate elevation to resume locking on Oct. 14.

“Project personnel have assessed the wickets and continue to correct breached wickets caused by the over-topping

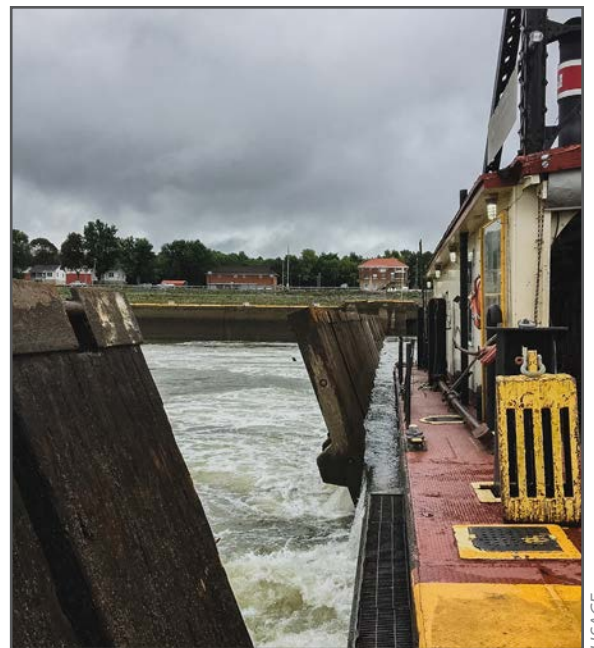
event,” said Waylon Humphrey, operations manager, Louisville District.

“To ensure the most reliable navigation conditions possible, USACE continues to work with all projects on the Ohio River as well as Kentucky Lake and Lake Barkley, to provide consistent hydrologic flows to the Locks and Dam 52 project,” he said

The Olmsted Locks and Dam will come on line in the summer of 2018 to replace locks and dams 52 and 53.



A view of the dam at Locks and Dam 52. Water flows through the middle of the dam where repairs need to be made.



The Corps' workboat has specialized equipment to raise the wickets at Dam 52.

Louisville District builds new homes at Rock Island

Katherine Rosario, Rock Island District public affairs

Sunlight pours through the large picture windows as a boat glides along the Mississippi River. Pelicans bob in the water and a light breeze floats through the house. This isn't a vacation home with a fantastic view. Soon military families assigned to Rock Island Arsenal, Illinois, will be able to enjoy these views in their new homes built by the U.S. Army Corps of Engineers, Louisville District.

Thirty-three new single-family homes are currently under construction along the Mississippi River between the Col. Davenport House and Quarters One. Construction on the subdivision's 21 three-bedroom and 12 four-bedroom homes started Dec. 1, 2016, and is expected to near completion by spring of next year, said Donald Peterson, resident engineer for the Louisville District. The \$22.8 million contract includes new underground utilities for the site, new streets, a walking trail, playground, bus stop and basketball court.

On the other side of the island, new homes are replacing the older family housing units from the 1960s. The family housing townhomes, located on Rodman Ave. near the Moline gate, were torn down last year and will be replaced with 15 duplexes and eight single-family homes. Construction on the 10 three-bedroom and 28 four-bedroom homes is expected to be completed by summer of next year. The \$23.3 million contract includes bus stops, playgrounds, walking trails and a basketball court.

All the homes will be Leadership in



Katherine Rosario

Louisville District Project Engineer Gerald Zerphey, far left, explains the importance of the reinforced metal between the studs during a site tour for the district's visiting cadets. Each home is equipped with a safe room to help protect residents during bad weather.

Energy and Environmental Design (LEED) Silver certified. This certification is a contract requirement, Peterson said, and is also mandated by the Department of the Army.

"The LEED standards include a multitude of items, the most important of which, in my opinion, is energy efficiency," he said.

All of the homes are made of wood frame construction with fiber cement board siding, brick veneer and vinyl windows. Every home has one room with reinforced walls that acts as a storm shelter. The square footage ranges from 1,630 to 2,510. Depending on the model, the flooring includes vinyl, porcelain and carpet. The kitchen comes with built-in appliances and

quartz countertops.

"There are eight different types of single-family homes and five different types of duplexes being built," Peterson said, adding that all homes will have a two-car garage. "There are various color schemes and finishes being used so they will not all be the same."

Currently, the Louisville District has nine employees working at their Rock Island Resident Office managing the contract changes, communication, schedule management and coordination, Peterson said.

The most rewarding part of the project, he said, is "seeing new housing being constructed that our soldiers and families can eventually consider as home."



Katherine Rosario

Fifteen duplexes will replace the original family housing townhomes. Five different models will be constructed, each with a two-car garage and three to four bedrooms. The community includes a bus stop, playground, basketball court and walking trails.

School in session at Kingsolver Elementary



Col. Gary "Eddie" Gillon Jr., Chief of Staff, 1st Sustainment Command, Fort Knox, Kentucky addresses the audience comprised of students, faculty, and stakeholders during the Kingsolver Elementary School Ribbon Cutting Ceremony held Sept. 14, 2017.

Katie Newton, public affairs

On September 14 students, parents and staff at Kingsolver Elementary came together for a much anticipated ribbon-cutting ceremony of the new state-of-the-art school at Fort Knox, Kentucky.

The Department of Defense Education Activity (DoDEA), which is opening 14 new 21st century concept schools around the world this year, welcomed students to Kingsolver in August.

"There will be thousands of students that will walk through these halls and will ultimately impact the future of our world," said Dr. Linda Curtis, principal deputy director and associate director of academics for DoDEA, during the ceremony.

"This new school will be a place where students will build their capacities and their aspirations with the support of their teachers, administrators, command support and great parents and students."

The original Kingsolver Elementary, named after William E. Kingsolver—the first superintendent of Fort Knox schools from 1941 to 1954—was drastically different than the modern facility students are learning in today.

"I think it's safe to say that the world in school design and construction were much different then," said Curtis reminding students and faculty how much has changed since those cinder block structures from bygone days.

The 21st century school concept includes adaptable neighborhoods that include learning studios, teacher collaboration space, and open-area common

spaces designed for student-centered learning. This type of innovative learning environment coupled with the educational green features is a game-changer for today's students.

Students have the unique opportunity to learn about sustainability from the building around them. Every aspect of the new 115,000 square-foot school was designed with green features in mind—from energy dashboards that allow students to see how much water or energy their class is using to a composter that turns kitchen trash into plant food.

"This 21st century school is a teaching tool itself and inside you will see systems and building components exposed to

provide students with real world examples they can relate to, providing them with hands-on learning experiences in science, technology, engineering and math," said Curtis.

"We're also very proud that Kingsolver Elementary is a LEED Silver certified facility with sustainable design strategies, energy efficient lighting and heating and cooling systems. We've even incorporated solar water heating, food waste extractor systems and daylight sensor light level systems that provide a comfortable, economical and efficient learning environment for students."

The \$38.9 million project, managed by the U.S. Army Corps of Engineers Louisville District, was constructed by AWA Wilson Joint Venture to meet the requirements for LEED Silver certification meaning every aspect of the building's design, construction techniques and its future use was taken into consideration, from using high-efficiency toilets to low-VOC paint on the walls.

USACE Project Engineer Steve Skaggs said no detail was overlooked on the project. "Our design partner worked closely with DoDEA Americas and the Kentucky School District, our partners at Fort Knox, and USACE Engineering and Construction Divisions to ensure a facility that is much more than just a building, but is a cutting-edge, sustainable facility that will enhance the learning experience for all of the students who attend," he said. "It almost makes you wish you were a student again, because this school is remarkable."



Second grader Hayden Compton, cuts the ribbon along with Gillon and Laura Gibson, principal of Kingsolver Elementary School.

Louisville debris experts aid hurricane recovery



The Debris Planning and Response Team captured an aerial view of Hurricane Irma's impact on St. Thomas in the U.S. Virgin Islands.

Sarah Mattingly, public affairs

When disaster strikes, the U.S. government responds, and the U.S. Army Corps of Engineers is a vital part of that National Response Framework. Now, teams from the Corps are working around the clock to support the recovery from September's catastrophic hurricanes – Irma, which devastated the U.S. Virgin Islands and parts of Florida, and Maria, which tore through Puerto Rico two weeks later. The Louisville District has taken on the debris removal mission in these areas, coordinating with FEMA and local partners. Twenty-two district employees have deployed to the Caribbean, and more are on the way.

"The team has been doing a great job overcoming obstacles – lack of communications, weather, lodging, and power," said George Minges, acting chief, Louisville District emergency management and security branch. "While working long hours, they have been able to excel as a team to get the debris management mission up and running with limited resources. They are 100 percent building strong and taking care of people."

In the Virgin Islands, debris subject matter experts are coordinating with the USVI Department of Planning and Natural Resources.

Contract Specialist Jesse Scharlow was part of the Debris Planning and Response Team stationed on St. Croix. He described the work, which included assembling

the stakeholders, assessing damage, and finally planning and preparing for debris clearance, removal and disposal.

During aerial assessments, experts estimated a total of 1.1 million cubic yards of debris for removal across St. John, St. Thomas, and St. Croix – that's the equivalent of 350 Olympic-size swimming pools.

"Our team is fully committed to ensuring the people living and working in the Virgin Islands are given the full support of the Corps of Engineers," Scharlow said. "I am honored to have been chosen for this

assignment, and it means the world to be able to assist those in need."

The Corps responded to Irma so quickly that when Maria barreled through, some team members were already in place on St. Croix, which, while spared the worst of Irma, was hit hard by Maria.

Quyet La, resident engineer for the Debris PRT in St. Croix, described the humbling experience of weathering Hurricane Maria's category five winds.

"Experiencing Mother Nature's wrath reminds you of her power," he said. "Her force is immense, but some of the most difficult part is witnessing the aftermath of the decimation. Power, water, internet, comms: in a blink – gone."

"I have always been proud to work for the Corps, but more so during these events," he said.

The scene in Puerto Rico is no better. Current estimates figure that five to six million cubic yards of debris need to be picked up, reduced – to take up less space in landfills – and ultimately disposed of, while meeting all environmental quality requirements, explained Greg Hales, a debris subject matter specialist.

"To visualize this amount of debris, picture 100 acres piled 37 feet high," he said.

Hales is responsible for coordinating emergency route clearance and debris removal activities with all team members from the federal government and the

Continued on next page



USACE Debris Team members Duane Pfouts, Chad Potts and Dennis Norman discuss operations with Kerry Kennedy, lead contractor, at the debris transfer site on St. John, USVI.

Continued from previous page

Commonwealth of Puerto Rico. Working out of a San Juan hotel they plan future route clearance and debris removal and disposal across the island.

“Emphasis is put on reuse and recycling, as the existing landfills in the commonwealth are near capacity,” said Hales.

Hales also provides technical support to the local government, helping to expand their capabilities and improve efficiency, and is coordinating with the U.S. Coast Guard to support their pending removal of up to 200 sunken vessels, to prevent contamination of the coastal waters.

Even with the exhausting schedule – they work 12-hour days, seven days a week – team members are unbowed.

Hales has requested to extend his tour to sixty days. “I may return again after a short break,” he said.

Quyet La explained that their resilience is nothing compared to that of the people they are helping.

“Despite the calamity, they are still spirited,” he said. “No doubt they shall rebuild. I am glad we get to be a part of the recovery.”



A telephone pole is snapped in two outside the Legislature of the Virgin Islands office building in Frederiksted on St. Croix, USVI.

Quyet La

Louisville employees support Blue Roof mission in Irma's wake

Sarah Mattingly, public affairs

Since Hurricane Irma struck Florida in early September, 31 counties have been declared disaster areas, and Louisville District Corps of Engineers employees have deployed to support the Jacksonville District as they manage the blue roof program for FEMA.

Operation Blue Roof is a program for homeowners in disaster areas who have damage to their roofs. The program sends licensed contractors to cover the damage with fiber-reinforced plastic sheeting (tarp) until homeowners can arrange repairs.

With their roofs temporarily covered, residents are able to stay in their homes, rather than paying for temporary housing or hotels, and their property is protected while they recover from the storm.

“Before being deployed, I did not know about this program,” said Cathy Castle, a roofing quality assurance inspector from the Louisville District. “I have met families that have been in shelters, and with our blue roofs they will be able to stop the leaks and move back in their homes. It makes me feel proud to be part of an organization that helps people in need.”

Castle serves at a Right of Entry collection point in Tampa, ensuring that



Albert Masticola, a USACE blue roof quality assessor from the Louisville District, takes notes as he surveys damage done by Hurricane Irma to a home in Summerland Key, Florida.

homeowners meet established criteria and that Corps staff and contractors can access their homes to install the blue roofs. She also assesses and measures for the blue roofs and does spot checks following installation.

Operation Blue Roof is a free service

to owners of homes that are primary residences or permanently occupied rental properties and that have less than 50 percent structural damage. Vacation rental properties are not eligible for the program. For more information, visit <http://www.saj.usace.army.mil/BlueRoof/>.

Mark Rankin

Air Force Reserve earns kudos at end of year



A rendering shows how the Pittsburgh Air Force Reserve Station will look when completed.

Carol Labashosky, public affairs

In the spring of 2016, the Air Force Reserve asked the U.S. Army Corps of Engineers Louisville District to step up and commit to having \$250 million of projects awarded by Sept. 13, 2017. At that point, very few of the requirements were defined, none of the projects were approved and no real plan existed to get to the end point.

According to Scott Wall, Headquarters,

Air Force Reserve Command, the team at Louisville was asked to push forward, and push forward they did. The last of the “dream projects” – those that had to be awarded by the end of fiscal year 2017 – was awarded on Sept. 27. “The teamwork, level of effort, the desire to find ways to accomplish the task, the drive to meet milestones and stay on track have truly been amazing,” said Wall.

The team came together, bonded and accomplished contracting the projects in 17 months. The desire to succeed never wavered.

It took everyone working together and moving in the same direction to get this accomplished. Cristie Mitchell, chief, Louisville District Air Force Reserve Support Section, was persistent and responded with positive reinforcement.

“She never said ‘no’ or that the task couldn’t be complete, nor did she ever say ‘we can’t,’” said Wall. “She said, let me check, and we’ll figure it out.”

“Thank you from Headquarters Air Force Reserve Command, as well as all the staff at Niagara Falls, Pittsburgh and Seymour Johnson, Air Force Base, Goldsboro, North Carolina,” Wall continued. “The work you have done will have an impact on the Air Force Reserve Mission for many years.”

“I never doubted that we would succeed. I enjoyed seeing the three teams that included USACE, AFRC, Pittsburgh Air Force Reserve Station, Seymour Johnson AFB, Niagara Falls ARS come together,” Mitchell said. “The synergy created by these teams was amazing and contributed significantly to our success. A big ‘thanks’ to every single person who helped make this contracting happen.”

Full Facility Restoration complete at Fort Totten

Carol Labashosky, public affairs

An Army Reserve Center project was planned and executed to fully restore an Organizational Maintenance Shop (OMS) and Area Maintenance Support Activity (AMSA). The facility was constructed at the 2,100-personnel, Fort Totten Army Reserve Center, Fort Totten, New York, near New York City on Long Island.

The 41,000-square-foot facility required typical upgrades for mechanical, electrical and plumbing systems, floor plan alterations, and building improvements for energy conservation. This project also included the raising of the main shop area for clear elevation for installation of a new bridge crane to span the entire work area.

The project was done in two phases. Phase I completed the OMS building which was placed in service to serve as swing space for operations during Phase II which

Continued on next page



Major Gen. Troy D. Kok, commanding general of the 99th RSC, center, cut the ribbon at the revitalized facility in Fort Totten. U.S. Rep. Thomas R. Suozzi and New York City Council Member, 19th District, Queens, Paul A. Vallone are third and second from right, respectively.



Continued from previous page

served to renovate the AMSA Building. The project posed structure and foundation design challenges due to raising the structure height.

Excavations and dewatering for features on the installation gave rise to unforeseen conditions involving hazardous materials that required environmental considerations. The project team engaged the installation and New York City and state environmental partners to facilitate effective solutions to those challenges.

“The project was successfully completed in the spring of 2017 providing an updated, comfortable work and training environment for the Army Reserve,” said Jeff Bayers, Army Corps of Engineers Louisville District Army Reserve project manager.

The Louisville District is conducting a remedial investigation to determine the nature and extent of unexploded ordnance that may exist on land and underwater at the former Waugoshance Point Target near Mackinaw City, Michigan.

The formerly used defense sites property, known as the Waugoshance Point Target, was used by the Special Weapons and Tactical Evaluation Unit as a target for testing some of the first guided bomb technology during World War II.

The Corps' contractor, Pika Pirnie Joint Venture, has been on site along with their subcontractor, 3Dg, since September to conduct the investigation on the marine portion using side-scan sonar and bathymetry data collection. Upon completion of the marine intrusive activities, the land portion will be surveyed.



Critical Incident Stress Management is a program that assists employees who are dealing with abnormal events. Examples of these abnormal, critical incidents may be: serious employee accidents, emergencies, public fatalities, death of a co-worker, workplace violence, or similar problems that occur at home.

The heart of this program is the peer supporter. Peer supporters are USACE employees who work in various fields of work. They receive training to assist individuals who are in crisis. They are available to speak with anyone at any time. Peer supporters can be a first step for employees that need someone to talk to but do not want to see a therapist. Conversations with peer supporters are confidential.

Michael Hatcher, Operations
Larry Lemmon, Green River Lake
Shari Rogers, Wright Patterson AFB
Deryck Rodgers, Nolin River Lake

Additionally you can contact
314-925-5250
or
cism-vm@usace.army.mil