Falls City Engineer

VOL. 7, Issue 3 www.Irl.usace.army.mil

U.S. ARMY CORPS OF ENGINEERS LOUISVILLE DISTRICT

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Vol. 7, Issue 3

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



On the cover: Roush Lake, Huntington, Ind., releases water to maintain a safe elevation in the reservoir.

Please conserve: Think before you print.

Commander's Comments

Ladies and Gentlemen,

The pace certainly has not died down any over the last few months and will likely only increase as we head into the end of the fiscal year and our busy season for recreation and outdoor activities and work. Mother Nature hasn't been our biggest ally lately as the flooding in the Upper Wabash area continues at Salamonie and Roush lakes. Our response to these floods has clearly been an entire district effort and has gone extremely well. As I visited these sites a week ago the most impressive thing I saw was the complete support and trust we had from the surrounding communities. This isn't an accident and is absolutely based on the strong reputation our district has, along with the hard work each of you put in to building relationships with our stakeholders.

That reputation and the relationship building we do are the foundation for why our district is able to support efforts like the upcoming Robley Rex VA Medical Center in Louisville. Earlier this month, the Veteran's Administration formally asked us to act as the construction management agent for this highly visible and extremely important project. This is a great opportunity for the district, and our success will reinforce a strong relationship between USACE and the VA long into the future.

So, as you look at your service to the nation, take pride in our team's efforts whether that is supporting Olmsted, the Army and Air Force Reserves, NASIC at Wright-Patterson AFB with their Foreign Military Exploitation Lab, environmental work throughout our footprint, operating locks and lakes, managing our budget or

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Col. Christopher G. Beck Commander and District Engineer Louisville District U.S. Army Corps of Engineers

the myriad of other tasks we all do each day. Our team is well respected for our value.

As the weather continues to heat up and lots of folks take vacations over the summer months, please be safe and look out for one another each day. This is especially true over the 4th of July holiday. Please be safe. Enjoy your time with family and friends, and never forget why we do what we do each day.

Thanks again for all that you do!

Building Strong!

Chris

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BUILDING STRONG®

Civil Works

And the rains came Roush Lake reaches capacity



Rainfall, including remnants of Tropical Storm Bill, caused Roush Lake to reach a near-record pool.

Carol Labashosky, public affairs

The Army Corps of Engineers J.E. Roush Reservoir, Huntington, Indiana, received so much rain from the remnants of Tropical Storm Bill in June, coupled with additional rainfalls, that the project filled to its rim.

Roush reached its second highest level of 799.41 feet, 50 feet above normal summer pool and second only to the record pool level of 799.98 feet set in 2003. The top of the tainter gates is at 800 feet, and the top of the dam is 805 feet.

Like a full bathtub on the brink of overflowing, water has to be released through Roush Lake's "drain." The drain is an engineered system of "sluice gates," for low to moderate water releases and "tainter gates," for emergency releases. The gates are operated by the lake staff from the control tower on site. They control the flow of water from the dam. The gates open and close to varying degrees. The goal is to let out just the right amount of water to minimize flooding downstream of the lake and keep the dam operating as it was designed maintaining public safety.

Throughout the three-week event – as it stands at press time – the Corps of Engineers maintained a safe elevation of the lake. A safe lake elevation is necessary to ensure that the dam remains structurally sound.

The district's water management team and the dam and levee safety teams began working 24/7 June 19 keeping in constant communication with the Roush Lake staff to maintain that delicate balance of how much water to release. Lake staff had already begun heightened surveillance walking the dam day and night looking for anything unusual that would require more hands on deck.

"The Upper Wabash staff has performed excellently during this high water event," said Scot Dahms, Upper Wabash area manager. "We went on 24-hour shifts and 12-hour shifts immediately following June 16, when we received 4.5 inches." From June 13 to 21, Roush Lake received 9.7 inches of rain.

As the rain continued to fall in the Upper Wabash basin, releases from the lake were adjusted in order to control the rising pool. Some areas near the lake, predominately farmlands, flooded. Pumps were utilized when locals requested them.

The district Emergency Operations Center fired up June 17 and went full speed ahead coordinating with local and state emergency management agencies. For example, emergency pumps were

requested by the levee sponsor through the county EMA for pumping interior lowlying areas within the leveed area at West Terre Haute, Indiana. The EOC deployed dam and levee safety teams to observe and report conditions on the Roush Dam and at levees downstream along the Wabash River. So far, six teams have deployed to the upper Wabash River Valley. A public phone line was set up where EOC recorded daily lake status messages for the public. Roush, Mississinewa and Salamonie lakes required more scrutiny by lake and district staff. Levee safety teams continue to monitor the levees as the river crests and flows down the Wabash.

Besides the daily lake reports generated by the water management team, Dahms coordinated with local emergency management personnel and issued critical daily reports to the district.

"It has definitely been a team effort as staff from Mississinewa Lake is helping at both Salamonie Lake and Roush with other staff from Salamonie helping at Roush as well," Dahms said. "I am extremely proud of the Upper Wabash staff for stepping up to the challenge and fulfilling our flood damage reduction mission."

Salamonie Lake, also part of the Upper Wabash River basin, set a record pool of 793.25 feet, more than five feet higher than the previous record set in 1998.

More rain is forecasted, and the lake staffs and emergency operations center are providing support.



This photo was taken at the Salamonie Reservoir flip bucket stilling basin, where water outflows ran at 9,000 cfs on June 29.

Olmsted partnering Commander shows appreciation for Olmsted workers at ceremony

Carol Labashosky, public affairs

On June 1 at the Army Corps of Engineers Olmsted, Illinois, Dam Construction Project, nearly 20 contractors—craftsmen and craftswomen from Joint Venture WGA/AECOM, the contractor for the massive project received awards for superior work on one of the nation's USACE "Mega Projects."

Currently, more than 500 craftsmen and craftswomen are working at the site which is near the hub of the inland waterways on the Ohio River.

Awardees were cited for their service in procurement, safety, warehouse operations and quality control, for example. USACE Louisville District Commander Col. Christoper Beck handed out the honors and certificates of appreciation expressing that the work between the Corps and the contractor employees is an enduring partnership. "These men and women made 2014 a banner year for the project. You worked many long hours and worked hard. Nothing happens unless you are there," he said.

The project is in full swing as the low water season has begun. The second tainter gate of the dam is scheduled to arrive in June as of press time.



Louisville District commander Col. Christopher Beck presents a certificate of appreciation to Bobby Garduno, labor general foreman at the Olmsted Dam construction project.

Contractor Project Staff Award Winners Bobby Garduno, Labor General Foreman Stewart Rendleman, Ironworker General Foreman John Hubbs, Warehouseman Chris 'Radar' Carl, Casting Yard Clerk Judith Nichols, Procurement Rob Hobson, Safety Denny Alvey, Quality Control Jeff Foster, Strand Jack Operator Foreman Jason Lanier, Ironworker Foreman Steve Ferrell, Assistant Superintendent

Contractor Survey Team Award Winners Tom Goodwin Alfred Neihoff Don 'Woody' Woodward Ron Newton Andy Julian Jimmy Cain TJ Flores Kevin Russell Erica Elfs Sam Small

Olmsted project exceeds expectations as low water season begins

Carol Labashosky, public affairs

The Olmsted Locks and Dam project team kicked off the official 2015 Low Water Season early with the setting of the first shell, paving block 5 (PB-5), five days ahead of schedule. "With cooperation from the river and phenomenal support from everyone involved, the entire project team is off to a great start and anticipates a very successful shell setting season," said Capt. Chelsey O'Nan, Olmsted Division executive officer. "This accomplishment reflects how efficiencies have optimized the resources necessary to advance critical milestones, further buying down hundreds of millions of dollars of cost exposure and years of scheduled risk," said Veronica Rife, project manager.



Military

USACE builds on 98-year NASIC intelligence mission

Katie Newton, public affairs

The U.S. Army Corps of Engineers Louisville District is helping expand the National Air and Space Intelligence Center (NASIC) facilities at Wright-Patterson Air Force Base, Ohio, where more than 98 years of intelligence gathering have helped protect the nation's security.

The new \$29.5 million, 58,000-squarefoot Foreign Materiel Exploitation complex will nearly triple the size of the existing FME facility and doubles the laboratory space, enabling NASIC to execute the ever-increasing number of exploitation projects.

The USACE Louisville District, which serves as the design and construction agent for this project, awarded the construction contract to Messer Construction Co., Dayton, Ohio, which will begin work on the new facility this summer.

"This exploitation lab is integral in U.S. Air Force intelligence collection and we're honored to be a part of a project so critical to our nation's security," said Steve Farkus, Louisville District project manager.

FME—one of many intelligence missions at NASIC-is the reverseengineering of foreign air, space and cyberspace-related military systems to help provide the U.S. with a better understanding of potential adversary



This rendering shows the future 58,000-square-foot Foreign Materiel Exploitation Complex at Wright-Patterson Air Force Base, Ohio.

capabilities. These discoveries are vital for national decision and policy makers, war planning and tactics development, and joint weapon system acquisition decisions.

"I will tell you, nobody allows us to know our enemy better than what NASIC does for us," said Gen. "Hawk" Carlisle, commander, Air Combat Command, during his keynote address for the official groundbreaking event held June 19, 2015.

against every adversary out there," said

"What [NASIC] gives us is advantage Those traditions have continued and now USACE gets an integral part in helping build upon that legacy. "Our job is to facilitate a smooth construction project," said Farkus. "When there's a snag, how do we beat it, how do we solve it-that's what we'll have to figure out and the type of challenges we will have from here on out during construction." The project, which requires

construction of a new state-of-theart laboratory and accompanying site work and landscaping, is slated to take approximately two years to complete and will tie in to the existing facility.

Carlisle. "The advantage that NASIC

gives us because we know our enemy

Since 1917 FME has been a part of the

NASIC mission. FME was in the spotlight

Patterson Air Force Base to be dismantled

in World War II, when pilots, engineers

and maintainers flew captured enemy

aircraft and materiel home to Wright-

cannot be overstated."

and studied.

"The whole team has to work together," said Farkus. "We can never finish the project alone. We've got to work with all the players and stakeholders-to include our design firm, which made the plans and specifications-to see it through to completion."



Louisville District Commander Col. Christopher Beck (third from right) joined other officials for the groundbreaking ceremony of the Foreign Materiel Exploitation Complex at Wright-Patterson Air Force Base, Ohio.

BUILDING STRONG®

Vuddagiri deploys to India to assist with C-17 beddown

Katie Newton, public affairs

Ram Vuddagiri, Louisville District project engineer in the Reserve Section, Engineering Management Branch is deploying in June to serve as a Senior Project Engineer for the Alaska District's C-17 beddown construction program in Ghaziabad, India.

Vuddagiri will be supporting the C-17 beddown construction program with the

design and construction of C-17 aircraft beddown infrastructure facilities for the Indian Air Force at the Hindan Air Force Station, just outside New Delhi.

The deployment will have special meaning for Vuddagiri working alongside the Indian Air Force, since his father served in the Indian Air Force for more than 25 years.



Environmental

Investigation continues at Raco Army Airfield

Katie Newton, public affairs

The U.S. Army Corps of Engineers Louisville District is back on site for the summer at the Raco Army Airfield and Missile Site conducting aquifer profiling and installing monitoring wells in an effort to delineate a half-mile long trichloroethene (TCE) groundwater plume.

The site, just southwest of Sault Ste. Marie, Michigan, in the Hiawatha National Forest was used as an airfield for 21 years and a missile base for 13 years, ending in 1972. Under the Formerly Used Defense Sites (FUDS) program, USACE cleans up Department of Defense-related contamination on properties that were owned, leased, possessed or used by the Defense Department.

Louisville District environmental engineers Josh Van Bogaert, Craig Coombs, Brittney Hyde and Quyet La and geologist Mark Nichter have been alternating 10-day shifts onsite to direct the fieldwork with the contractor, GEO Consultants. Since April 21, the project team has drilled over 3,600 feet, installed seven new monitoring wells up to 330 feet deep, and analyzed more than 259 Volatile Organic Compound (VOC) samples at an onsite mobile laboratory. Clarissa Murray and Steve England, from the Regional Center of Expertise for Groundwater Modeling in Philadelphia District, have been assisting with real-time 3D plume modeling.

"The exceptional coordination between



Amidst the vegetation of the Hiawatha National Forest in Michigan, contractors work to install monitoring wells at the Raco Army Airfield and Missile Site as part of the ongoing environmental remedial investigation.

the contractor, USACE field staff, USACE office staff, and state regulators has allowed us to deliver an efficient project for the FUDS program," said Van Bogaert. "Through several field staff transitions, and despite working in a remote location in conditions ranging from snow to hot weather with biting black flies, the field work has continued to go smoothly."

The first round of groundwater sampling from the new wells will take place mid-July with the next round to occur in late fall 2015. In addition to the on-site sampling, four nearby residential drinking water wells were sampled to ensure there were no detects of VOCs in the water. All of the residential well samples were clean.

"Sampling the residents' wells was an extra precaution," said Van Bogaert. "Ensuring their safety is our top priority, and it helps ease the minds of residents."

After all field work is complete, a remedial investigation report will be prepared to summarize the results of all the field efforts, define the nature and extent of the TCE plume, describe contaminant fate and transport processes, and determine if there is any potential risk to human health and the environment.

Corps checks in with five-year/periodic reviews

Katie Newton, public affairs

Whether it's checking for holes in fences, looking for proper signage on a site, evaluating soil and groundwater remediation systems, or assessing the integrity of a landfill cap to making sure animals haven't burrowed into a bank of the landfill, the U.S. Army Corps of Engineers Louisville District has been busy this year conducting five-year/ periodic reviews at six environmental sites across the country.

Louisville District environmental engineers and geologists have been on the road this summer visiting sites from Camp Navajo in Arizona to Redstone Arsenal in Alabama to complete the necessary investigations and reviews.

"The idea is to have a district outside of the project area to do the reviews so they are being looked at with fresh eyes," said Karen Rabek, who oversees the program for the Louisville District. "That's why we've been all over from Alabama to Arizona to New York."

There are two different types of reviews being conducted— Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) five-year reviews, which are more involved requiring public involvement and regulator concurrence and then periodic reviews, which are done internally for the installations and customers.

Five-year reviews are required where hazardous materials or munitions remain on a site above levels that allow for unlimited use and unrestricted exposure to make sure that the remedies put in place



Shown here is one of the landfills that USACE inspected in Ft. Bliss, Texas, as part of the reviews.

are still functioning as intended to protect human health and the environment.

The Army Environmental Center (AEC) annually coordinates the projects that are due for five-year review for the Army and the USACE Environmental and Munitions Center of Expertise, located in Omaha, Nebraska, is tasked with the project management function of assigning USACE districts for third-party review.

The whole process start to finish takes approximately six months to a year, said Rabek. The process involves reviewing existing documentation, identifying new information and current site conditions, a preliminary site analysis, a site visit to assess remedies in place, and finally the preparation of a five-year review report that documents protectiveness of remedies and identifies optimization for existing remedies.

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Proper signage in place at Redstone Arsenal in Alabama that was documented during the five-year review process.

USACE visits the sites to make sure the remedies are still in place. "Whether it's deed restrictions, not allowing buildings with basements on the property, checking to see if fences are needed or if fences are being maintained to restrict access to hazardous areas, checking for signs of erosion that may compromise landfills or in-situ remedial efforts, or assessing the efficiency of the existing process of monitoring groundwater," said Rabek, "Those are some of the things we are looking for during our site reconnaissance to make sure the measures put in place are still protective."

All of these findings are presented in a protectiveness statement in the five-year review report, which shows everything that was evaluated and its current level of remedial efficiency or protectiveness. Subsequently, the report provides recommendations on mitigation to optimize or correct all deficiencies that were discovered.

Reviews will continue on a site until contamination levels are reduced to be protective of human health and the environment. Once these levels are achieved the site can be re-classified for unlimited use and unrestricted exposure and can be removed from the review list.

There is quite a queue of projects to be reviewed every five-years and the Louisville District has been working to take on more and more of those reviews. Rabek says she's hoping to expand to a team of five so the Louisville District can play a bigger role in the five-year/periodic review program.

Former Cleveland Plant reaches closeout



The Former Cleveland Plant in Ohio was established in 1918 by the Chemical Warfare Service as an experimental research facility for manufacturing mustard agent and magnesium arsenide during World War I.

Katie Newton, public affairs

The Former Cleveland Plant in Ohio —an experimental research facility for manufacturing mustard agent and magnesium arsenide during World War I —is now in the phases of project closeout after almost two decades of environmental investigations at the site.

In May, the U.S. Army Corps of Engineers Louisville District signed a Decision Document for the former Cleveland Plant recommending No Department of Defense Action Indicated (NDAI) after studies showed that no risks to human health or the environment were identified, no remnants persist either on the surface or subsurface such as buried drums and that ultimately no remedial action was necessary.

"Partnering between the Louisville District, the Ohio EPA, the Huntsville Center Ordnance & Explosives Directorate, and the community, as well as following the CERCLA process, have contributed to the successful completion of this project," said Theresa Beckham, project manager, Louisville District. "This effort included diligent involvement of several project managers and PDT members over the years."

The former Cleveland Plant, established in 1918 by the Chemical

Warfare Service, was strictly a research facility and mustard was only produced at the Cleveland Plant from April to October for the purpose of developing and testing the equipment needed to produce it. Operations ceased after the war armistice was signed in 1918 and the property is now privately owned and used for light industrial and commercial purposes.

Since 1997, USACE conducted a number of investigation activities at the site, including initial assessments and gathering and analyzing historical photos. An Engineering Evaluation/Cost Analysis (EE/CA) was performed to characterize the nature and extent of any concentrations of suspected mustard agent, mustard agent breakdown compounds, or magnesium arsenide that were found; it was also, if necessary, to recommend an appropriate cleanup alternative.

During the EE/CA, 22 anomalies were investigated as possible disposal locations and trenches were excavated to investigate. Soil samples were collected from the anomalies and none of the samples had detections for mustard agent. Some samples showed arsenic and manganese at five locations, which are naturally occurring elements that have both been used for industrial and commercial products. The remedial investigation was completed in 2013, which found no evidence of burial activity during the use of the site by the Department of Defense. There was also no evidence of DOD-caused contamination at the former Cleveland Plant, so there is no site risk from the DOD activities.

The Louisville District selected the response of No Further Action in accordance with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, and the National Oil and Hazardous substances Pollution Contingency Plan (NCP). Ohio EPA concurred with USACE's determination. The decision for the former Cleveland Plant was completed after publishing the Proposed Plan for public comment and holding a public meeting in the fall of 2014 and the close of the public comment period during which no comments or feedback were received.

Because the No Further Action decision allows for unlimited use and unrestricted exposure, a statutory review of the protectiveness of the selected remedial action will not be required. Additionally, five-year reviews will not be required.

Reserve

Annual Training Mobilization Dining Facility, Fort McCoy, Wis.

Carol Labashosky, public affairs

The dining facility will improve food service for Army Reservists who train at Fort McCoy, Wisconsin. Large-scale annual training exercises typically occur in the summer at Fort McCoy with rotations of 650 part-time Soldiers. "The Real McCoy" contains an article on the dining facility; go to: http:// www.mccoy.army.mil/ReadingRoom/ Newspaper/RealMccoy/20150410/dining. html



Emergency Operations

District seeks emergency management program accreditation

Todd Hornback, public affairs

The Louisville District started the process for the Emergency Management Accreditation Program, referred to as EMAP, known as the only accreditation process for emergency management programs and expects the accreditation to take up to two years to complete.

"The program is emergency management-wide throughout the world," Don Walker, Louisville District emergency operations manager, said. "Our objective is to be accredited no later than the 4th quarter of fiscal year 2016 with at least a 90 percent overall score to receive the Gold Accreditation EMAP seal."

The goal is not expected to be an easy undertaking, and the Louisville District accreditation is just part of the overall goal for the U.S. Army Corps of Engineers to be 100 percent certified by FY18. The corps will join the accreditation process with other international, federal, state, local and higher educational programs.

Why EMAP accreditation?

According to EMAP, the process revolutionizes emergency management programs that coordinate preparedness and response activities for disasters based on industry standards.

"EMAP recognizes the ability of emergency management programs to bring together personnel, resources and communications from a variety of agencies and organizations in preparation for and in response to an emergency, in addition to obtaining the ability to measure those capabilities," an EMAP release stated.

"The Emergency Management Standard is flexible in design so that programs of differing sizes, populations, risks and resources can use it as a blueprint for improvement and can attain compliance with the standard."

EMAP's five-step process to accreditation will assure the district and emergency management meet compliance requirements in sixteen areas. These include planning; resource management; training; exercises; evaluations; corrective actions; and communications and warning.

According to EMAP, "This forms the foundation of the nation's emergency preparedness system."

The accreditation process will include the following five areas and will require a renewal every three years:

- Subscription
- · Self Assessment and application
- On-site Assessment
- Review and Decision
- Accreditation and Maintenance

To oversee the accreditation process, Emergency Management created the Emergency Management Senior Oversight Group, referred to as the EM-SOG. The group, comprised of 12 members across the district in addition to EM staff, conducted its kick-off meeting June 2 to discuss the path to obtain certification.

"This accreditation is a team effort,"

said Chuck Oliver, Louisville District emergency manager. "Emergency management involves aspects across the district. This is not just an accreditation for emergency management, but for the district and for the command."

Part of this process will be to reach out to other districts in the Great Lakes and Ohio River Division and Corps-wide for lessons learned.

"EMAP is a basic work tool to organize and be more efficient in emergency management," said Carl Miller, retired chief of EOC, Huntington District. He added this process helped assure the emergency processes within a district are documented which helped organize everyone's job within a district to respond to emergencies or scenarios.

Huntington District boasts the honor of being the first Corps district to receive the accreditation. In addition, Pittsburgh, Kansas City and Seattle districts have also received accreditation.

"The emergency management community is becoming redefined as more government entities and businesses see the necessity to ensure they are prepared for and may respond to any identified hazard that will affect them," said Barb Graff, director of the Seattle Office of Emergency Management and chair of the EMAP Commission. "By achieving accreditation, these programs demonstrate, through proving compliance to standards of excellence, the commitment to their communities' safety."