

# Falls City Engineer

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U.S. ARMY CORPS OF ENGINEERS  
LOUISVILLE DISTRICT



US Army Corps  
of Engineers  
Louisville District

## *Corps raises first wind turbine at Army Reserve Center*

*See page 12*



# Commander's Comments

Louisville Team,

As we enter the first days of winter, I'd like to refer everyone to our operations order covering emergency dismissal due to severe weather. In general, if the federal building or the local military base is closed for bad weather, I will authorize administrative leave. I urge everyone to keep a prudent number of leave days in the bank in the event you feel you cannot safely get yourself to work on days when the building or base remain open. In those instances, supervisors can authorize liberal leave. Our method for getting the word out to employees will primarily be the District Alert and Notification system, so supervisors – make sure your phone rosters are kept up to date.

It's no secret that our workload projections for the years 2013 and beyond are significantly lower than the heydays of the BRAC program, and I'm sure that this is unsettling to many employees here. The truth is that we will certainly weather some significant downward pressure on the size of the district workforce. I'd like to allay some of those concerns by telling you all that each of your division chiefs have worked carefully through the workload-to-workforce projections over the last few months, and I don't predict having to take any drastic measures in 2012. We will definitely need to get

smaller as an organization – but to do that I plan on relying primarily on natural attrition. We will (and already have) become much more restrictive and deliberate in hiring new employees, and you can expect some of the positions vacated by retirements and separations this year will not be backfilled, or will be combined with other duties as part of our need to get smaller. Also, construction division employees can expect some need to PCS as our workload shifts heavily from one post to another, but that isn't unusual or unexpected. This is all natural and healthy for the organization.

I'd like to thank everyone for their generosity in the 2012 Combined Federal Campaign (CFC). As a district, we raised more than \$104,000 for charity. Thank you all for your generosity and especially to those CFC Canvassers who volunteered their time and effort to get us over our objective.

Finally, I've got to recognize the many incredible Louisville District employees who are retiring as the calendar year ends. That distinguished list includes George Jageman, Alyse Roberts, Tom Yingling, Mike Holley, Terry Siensen, Joe Foreman, Lewis Graham, Mike Ryan, Terry Stegall, Robert Buckman, Timothy Stewart, Daniel Halak, Michael David, Edward Roberts,



**Col. Luke T. Leonard**  
**Commander and District Engineer**  
**Louisville District**  
**U.S. Army Corps of Engineers**

Clyde Moore and Dawn Cook. With them goes hundreds of years of experience and friendship. We'll miss them all and hope they'll keep close ties as new district alumni.

Have a safe and happy holiday!  
 Building Strong!

Luke

## Falls City Engineer

Vol. 3, Issue 6

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**On the cover:** *The first wind turbine is raised at an Army Reserve Center in Butte, Mont.*

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# Corps prepares project sponsors for flood fight



Louisville District Geotechnical Engineer Will Puckett demonstrates how to correctly place sandbags around a sand boil during a flood event. The demonstration was held during the Fourth Annual Levee Safety Conference Nov. 30-Dec. 1 in Jeffersonville, Ind.

Katie Newton

By Katie Newton, public affairs

In an effort to prepare communities and local project sponsors for a flood event, the U.S. Army Corps of Engineers Louisville District hosted its Fourth Annual Levee Safety Conference “Flood Preparedness” Nov. 30-Dec. 1 in Jeffersonville, Ind.

The conference, which was the first of its kind for the Corps of Engineers in 2008, provided valuable information to more than 140 attendees comprised of levee system local sponsors, vendors, Architectural Engineer’s, and state agency officials in the Corps levee program. The local sponsors who attended the levee safety conference operate and maintain more than 276 miles of levees in a four-state area in the Ohio River Basin as part of the Louisville District boundaries.

The two-day conference featured more than 20 presentations and workshops which covered various levee safety topics including success story “Saving the town of Smithland, Ky., from 2011 Ohio River Flooding” by County Judge Executive Chris Lasher; Emergency Action Plans (EAP); What is underseepage; Underseepage Fixes; public awareness and how to request assistance during an emergency; the new National Levee Database; levee system evaluation; and the National Flood Insurance Program. The conference also helped sponsors by allowing them to become familiar with the latest levee criteria.

A highlight of this year’s conference was a hands-on sandbag demonstration, which allowed attendees and local sponsors

to witness how to properly stack sandbags during a flood and how to contain a sand boil.

“It’s critical because the local sponsors need to experience the actual feel of a properly filled sandbag,” said John Allison, chief, civil engineering branch. “It’s important to perform live demonstrations with sandbags rather than simply present pictures of sandbagging operations. Hands-on experience beats Power Points anytime,” said Allison.

The demonstration, led by Louisville District Geotechnical Engineer Will Puckett, served as a great opportunity for local sponsors to ask questions specific to their projects in recent flood fighting situations.

“Proper sandbagging techniques are crucial to augment low areas of a levee or provide adequate back-pressure around sand boils, as opposed to the potential false sense of security of improperly filled and placed bags,” said Puckett.

The presentation offered several tips to conference attendees on how to properly use sandbags. Those tips include:

- Sandbags should only be filled half way
- Sandbags should be tied near the top, not too low
- Sandbags should be filled with dry sand or kept from freezing
- Sandbags should be staggered so the “mortar line,” or break, is zig-zagged so there isn’t a direct line of seepage where the bags butt-up against one another. It is imperative that sandbags be stacked correctly, with the proper

orientation of each layer and the plastic liner. This needs to be done prior to the water rising up on the sandbags so that they will actually retain water.

The conference also served as an outlet for the local sponsors to share their experiences and problems. “They gain valuable contacts that can be of immeasurable value in the next flood event,” said Allison.

Conference attendee and Paducah levee system local sponsor Rick Murphy said, “The biggest benefit of the conference is putting faces to names. Sponsors being able to network with other sponsors with similar projects is a great help. It allows great networking and knowledge sharing.

“We benefit when we are more familiar with our Corps representatives that can help with different aspects of our projects. Sometimes the information can be hard to digest, but that’s why the points of contact at the Corps are so important,” said Murphy.



Katie Newton

# How to read a river

## Workshop offers view into river, stream restoration management



Dave Derrick, a research hydraulic engineer with USACE's Engineering Research and Development Center's Coastal & Hydraulics Laboratory, takes a photo of the lower Wabash River while on a field exercise during the Lower Wabash River Workshop on Rehabilitation and Riparian Functions held Nov. 15-17 in Evansville, Ind.

John Neville

Compiled by John Neville, public affairs

Rivers and streams have been evolving forever. Many factors contribute to the reconfiguration of bodies of water, though most change is attributable to erosion.

Erosion doesn't always cause problems. However, at other times, erosion directly impacts the course and severity of flooding as well as the amount of non-source pollutants entering streams and rivers. One of the U.S. Army Corps of Engineers' main missions is to mitigate the effects of flooding and so it does have an interest in the restoration and management of points along rivers and streams vulnerable to flooding. Another Corps mission, to sustain appropriate water quality for the public, is directly related to river bank erosion.

In an effort to better carry out its missions, the Louisville District hosted a stream and river restoration and management workshop Nov. 15-17 in Evansville, Ind. Dubbed the Lower Wabash River Workshop, the event offered attendees a tutorial on the restoration and management of streams and rivers and associated riparian areas to prevent non-point source pollution such as eroded sediments in streams, rivers and reservoirs. Attendees included members from across the Corps, other state and federal agency employees, members of academia, as well as farmers who have been flooded and/or lost land due to their property's location along the river.

Several factors are at work in the erosion process, and many of them work together to weaken river banks. The cohesiveness of the soil, the lack of riparian buffers, and the velocity of water all play a role in the erosion process. One of the most effective methods of stabilizing river banks and controlling non-source pollutants is the construction and/or support of riparian buffers.

Riparian buffers are vegetated—grasses and trees—areas next to water resources that protect water resources from nonpoint source pollution and provide bank stabilization and aquatic and wildlife habitat. As sediment in the surface water runoff carry pesticides and phosphorus to the banks of streams and rivers, a riparian buffer can intercept sediment and remove its associated pollutants.

But, "a majority of riparian systems have been converted or severely degraded," said Rich Fischer a biologist with the Corps' environmental laboratory.

However, with time and the right materials, riparian buffers can be constructed or restored. The key is determining which area to focus on, a determination that requires understanding of the river's hydrology, or how the water moves through or over the buffer.

Once the proper place is chosen, the next step is determining what types of grasses and trees to plant and where to plant them.

"The grasses and trees increase shore-

line stability," Fischer said.

The filtering process provided by the grasses and trees is also self-sustaining because the buffer actually feeds itself with the nitrogen and phosphorous that it filters. As the buffer grows, it provides habitat for other life such as song birds and small game and it provides better security against erosion and non-source pollutant runoff.

But restoring and managing rivers and streams and associated riparian buffers requires careful analysis. Another speaker at the workshop, Dave Derrick, a research hydraulic engineer with USACE's Engineering Research and Development Center's Coastal & Hydraulics Laboratory, offered these words of wisdom for reading a stream.

"Look, look, look, think, think, think," he said. "Look again! Think some more."



John Neville

Rich Fisher, a research biologist with the Corps's ERDC-Environmental laboratory, talks to attendees during the field portion of the workshop.

# Division commander visits Louisville

By Todd Hornback, public affairs

Col. Margaret W. Burcham, division engineer, Great Lakes and Ohio River Division, visited the Louisville District for an overview of civil, military and environmental projects and to meet and greet district personnel, Nov. 21 and 22.

The visit was one stop on her itinerary of the seven engineer districts that include more than 4,800 personnel operating in a 17-state area. While in the district, Burcham received overviews of the civil, military and environmental restoration programs.

Having served in the Far East District, in Seoul, South Korea, and as the commander of the U.S. Army Corps of Engineers Gulf Region North District in Iraq, the visit to Louisville District provided Burcham a time to familiarize herself with the diverse district workload and to share her vision.

"I respect you for who you are as federal employees," Burcham said in a meeting with district senior leaders, adding, the Corps is part of the Army and is important in mission and focus.

From her experience in Iraq, Burcham stressed the importance of supporting and sending the right people for overseas contingencies —stating the work is satisfying.

"The people there asked to be there and they were very motivated," Burcham said referring to the Corps personnel serving under her command.

She stressed the importance of operating with integrity, emphasizing engagement and openness. She added, she wants to be informed through the chain of command if there are issues and if needed, she will pick up the phone and contact stakeholders and partners to state the issue and what is being done to correct any problems.

We must be creative and look at how we do business, Burcham said, to see with new eyes if there is a better way to do business.

"It is a balance. We don't want to break the china. We just have to make sure we look at it from all directions," she said.

Burcham, commissioned at the U.S. Military Academy at West Point in 1982, previously served as the Chief of the Joint Capabilities Division of the Resources, Assessments and Force Management Directorate, J8, on the Joint Staff in the Pentagon and the commander of the Europe District U.S. Army Corps of Engineers as well as the Gulf Region North District of the U.S. Army Corps of Engineers in Iraq.



Ken Beyer

Great Lakes and Ohio River Division Commander, Col. Margaret W. Burcham, visited the Louisville District in November for an overview of district programs and to meet district staff. Burcham assumed command of the division in September 2011.

## Corps staff credited with saving a life at Locks and Dam 52

By Katie Newton, public affairs



This shot shows the beartraps at Locks and Dam 52 close to where the incident occurred. Corps staff were on-site immediately to assist the stranded boater.

Corps personnel at Locks and Dam 52 came to the rescue of a stranded boater last month.

Shortly after noon lock staff heard a distressed yell from the lockwall where a man was spotted about 1,000 feet downstream of the bear traps standing on top of his overturned boat.

911 was called immediately and Corps staff sprang into action. Corps staff arrived at his overturned boat within minutes to discover that the man was okay.

The victim was transported to EMTs while a second Corps boat freed the

stranded vessel and towed it to the Kentucky shore.

"This was an outstanding effort by the dedicated crew at Locks and Dam 52," said Rick Morgan, operations division chief, Louisville District Corps of Engineers. "Being alert of the surrounding area and reacting in a timely, professional, and proper manner resulted in saving the life of one individual. It was great work by all who were involved in this rescue."

# Brig. Gen. Harrison salutes Contracting team

By Carol Labashosky, public affairs

It may seem odd to have dedicated Army military personnel in contracting at the Louisville District and other regions, says Army Corps of Engineers Director of Contracting Brig. Gen. Ted Harrison, but a world-class engineering organization such as this knows that putting military in critical positions means getting the mission executed.

“Our mission is to provide trained and capable military contracting with military experience for the Army,” Harrison said when he visited the district in the fall.

Harrison said the Soldiers in contracting across the command are actually in a training status, and at the same time they are making a contribution. Most are deployable. When they deploy, they will have learned the contracting process and can implement it in contingency operations. “We rotate people, coach them, and focus them to gain experience in construction,” he said. “The district has a diverse mission so it’s a good place for training.”

At districts, military contracting specialists get a wide variety of experience such as acquisitions, managing a budget, and they gain experience in diverse and interesting places. Here at Louisville, Harrison noted, there are highly visible projects which require a significant amount of support such as Olmsted Dam project, the environmental and restoration service

contract, the Wright-Patterson Air Force Base hospital renovation and the Fort Knox hospital replacement. The Louisville District’s contracting mission is to provide a customer service, mission-driven organization executing quality contract actions to civil and military customers while prepared to provide immediate disaster relief contract support. Four military slots exist for support to that mission. Lt. Col. Derek Draper and Lt. Col. Melody Charles, occupy two slots. Master Sgt. Luzmila George is the third slot with another vacant non-commissioned officer position. The military serve in the district’s Military Contingency Contracting Organization part of the section.

Through their military career and when

they deploy, the Soldiers who work in contracting perform contract surveillance which entails making sure a contractor does the work properly. “That is a very rigorous job, that of a Contracting Officers Representative (COR),” Harrison said. They will do acquisitions as well. When they get overseas, some examples of these construction projects are schools, training centers or barracks.

While at the district, Harrison participated in a town hall meeting with LRL’s contracting section. In retrospect of the Louisville District’s contracting work in previous years, Harrison said, “You should be very proud of yourselves doing over one billion dollars worth of work. This district has done unusually well.”



Brig. Gen. Ted Harrison addresses the contracting team during a town hall in the fall. Harrison was complimentary of the Louisville District’s contracting achievements.

Carol Labashosky

## Rough River Lake receives Handshake Partnership Program Grant

By Diane Stratton, Rough River Lake

U.S. Army Corps of Engineers, Louisville District’s Rough River Lake was recently chosen to be a recipient of a 2012 Corps of Engineers Handshake Partnership Program Grant.

The \$30,000 grant will be utilized to complete development of the Rough River Lake Visitor/Outdoor Learning Center. Funds will be used to convert an existing storage building that overlooks the dam and lake into a working Visitor/Outdoor Learning Center that will feature interactive displays, a history of the area and the Corps. It will also serve as a general information center for visitors to the lake.

This facility is being developed in partnership with Friends of Rough River Lake, Inc. Members of the Friends of Rough River Lake will provide volunteers for remodeling the inside of the building, staffing the facility once it is completed, landscaping, conducting interpretive programs, organizing and implementing special events, constructing and maintaining a trail system and janitorial work.

This partnership will enable the Corps with the help of the Friends of Rough River Lake, to provide a central location where schools, youth groups, colleges and members of the public can visit and obtain

hands-on experience and information about outdoor recreation opportunities, community events, water safety, community involvement, Corps history, volunteering and project missions. The site will feature a wide variety of programming, a 1.1 mile interpretive nature trail, natural geological formations, exhibits and displays on natural resources of the area. The grand opening of the facility is expected to be in May 2012.

# Indy North Open House addresses upcoming project improvements

By Carol Labashosky, public affairs



Carol Labashosky

Tim Lawson, Indianapolis Department of Public Works, talks with Brad and Jessica Coffing, local residents, about the alterations to the floodwall—a Corps of Engineers project—in their neighborhood. Louisville District Civil Works Project Manager Mike Holley, also co-sponsored the public open house.

On Nov. 29 Indianapolis North levee/floodwall project team members Mike Holley and Curt Charles joined with the Indianapolis Department of Public Works to host a public open house to discuss upcoming rehabilitations to the levee/floodwall project located north of the inner city on the White River.

The minor upgrades will consist of placing fill materials along the landside of the floodwall to create a more structurally sound base whereby decreasing risk of levee failure. The work will involve placing gravel, sand and a geotech material approximately two feet high and 10 feet in width—similar to a platform—along the project on Riverview Drive. The work will be completed by the fall of 2012. The meeting was to inform residents of the engineering rehabilitations which were

implemented by the command post Hurricane Katrina. "The changes are necessary for project certification and acceptance by FEMA to reduce or eliminate flood insurance requirements for property owners - when the whole project is ultimately complete," according to Mike Holley, project manager. The project is being built in three segments. Two are complete.

For more information on the project, go to <http://www.indy.gov/eGov/City/DPW/RebuildIndy/Projects/Pages/Indianapolis-NorthLeveeProject.aspx>

The district continues to work on the Supplemental Environmental Impact Statement for the project.

## Defense of Freedom Medal presented to former Corps employee



Former Louisville District employee Joseph Haugen, who worked in the Wright-Patterson Area Office in Ohio, received the Secretary of Defense Medal for the Defense of Freedom for injuries he sustained while serving with the U.S. Army Corps of Engineers in Iraq. The Defense of Freedom Medal is the civilian equivalent of the military Purple Heart.

Haugen was recognized at a Veterans Day event hosted by the Columbus Blue Jackets. The award was presented by Brig. Gen. Stephen E. Markovich of the Ohio Air National Guard.



Courtesy of Vicky Haugen

Joe and his wife Vicky before the ceremony where Haugen was honored. Haugen also got to throw the ceremonial puck at the hockey game.

# Collaboration in design-build project made for perfect storm



The 450,000 square foot Building 840 is just one of the buildings (Buildings 840, 850, 851 and 852) in the Armstrong Complex at WPAFB.

By Barbara Dutton, construction technical writer, The Walsh Group

Completed in 2011, the new 680,000-square-foot Maj. Gen. George Armstrong Complex at Wright-Patterson Air Force Base (WPAFB) in Ohio houses the 711th Human Performance Wing (HPW) of the Air Force Research Laboratory. This command consolidates the United States Air Force (USAF) School of Aerospace Medicine; the Human Effectiveness Directorate; and the Human Performance Integration Directorate “to advance human performance in air, space and cyberspace through research, education and consultation.”

The 711th HPW utilizes sophisticated facilities to integrate biological and cognitive technologies under its Human Effectiveness Directorate, performs research and provides education and consultation, and through the USAF School of Aerospace Medicine hosts the largest aeromedical library in the world. The facility is also home to the Naval Medical Research Unit – Dayton, which includes an aeromedical research laboratory relocated from Pensacola, Fla. The combined facility facilitates enhanced partnerships and research collaboration among these Air Force and Navy units.

Among the facility features of this LEED Silver complex are specialized laboratories, a high-bay hangar designed for aeromedical evacuation training, classrooms, auditoriums, administrative offices, and spaces containing endurance and training equipment such as a disorientation device, altitude chambers and a man-rated centrifuge. The sizeable construction project effort also realized a pre-engineered

entomology building and an expansion and renovation of an existing vivarium.

The undertaking to construct such a complex building complex was executed through a design-build contract administered by the Louisville District, U.S. Army Corps of Engineers (USACE), and is the largest single contract awarded in the district’s history. The delivery method was selected to meet end-user requirements by delivering a high-level product within a timeframe to meet the Base Realignment and Closure deadline.

## Establishing partnership

One of the beauties of the design-build approach, suggests USACE Area Engineer Kevin Jefferson, is its ability to leverage the collaborative efforts of “experts to meet the benefit of best value.” Technical capabilities are among the prerequisites to a successful outcome – in this case, a massive facility completed nearly three months ahead of schedule for multiple occupant groups with diverse facility needs that were still evolving as the design-build process progressed – but teamwork philosophies play an important part, as well.

To achieve a project of this scale in line with the fast-track schedule that was adopted, the design-build team and the Government’s team had to collaborate to an unusually high degree. Hence, a solid and robust “partnership” was sought at the point of “notice to proceed” with the design-build contract.

While partnering among design-builder and the project delivery team of Corps representatives and Base Engineering (on

behalf of multiple end-user entities) would be formally formed through contractual agreement, ongoing communication would forge the partnership as the project progressed. From a willingness to discuss tough topics in a series of meetings to organizing on-site cookouts to promote cohesion, the effort to create a collaborative environment was a priority.

“The open communication of the project delivery team and their level of involvement fostered the high level of partnership that occurred in this project,” declares Senior Project Manager Dave Mankowski of the Chicago-based Walsh Group’s Archer Western Contractors enterprise which led the project’s design-build team.

## Identifying risks

Before any actual dirt was turned in the construction project, in order to unearth potentially pesky concerns and conditions, partnering surveys were conducted among user groups associated with the project, as well as among the contractor and subcontractors. Through this process, priorities for, and potential threats to, project progress were identified and assigned to a set of categories:

- Timely response – in assessing risk, making decisions and conceiving solutions;
- Change management – stemming primarily from a user complement that was still forming;
- Schedule maintenance – to consider causes of shift, consequences of delay,

*(Continues on Page 9)*

and formulating options for issue avoidance and potential recovery; and

- Outside equipment requirements – referring to the specialized devices for which spaces in the new facility would have to be constructed to accommodate.

Acknowledging and understanding these risks was fundamental in advancing a design-build effort to support the fast-track delivery that would be necessary to meet the schedule demands. “The project team, the Air Force and user did a lot of things right on the job to get all the players together,” remarks, USACE Project Manager Dewey Rissler of the unified approach to moving the project forward from a project management standpoint.

**Developing relationships**

The resourceful partnering concept that was instituted early on, recalls Jefferson, “remained throughout the whole project.” Utilizing this collaborative structure, the design-build team introduced various construction solutions to respond to schedule and field challenges anticipated or encountered during the work. For example, a framing system was engineered to implement a cast-in-place concrete frame for portions of the facility in combination with

structural steel for substantial portions of the two massive, main buildings of the complex, and enable concurrent production processes to achieve time-savings.

Some rethinking of construction task sequencing that achieved advantageous schedule adjustments, as well as taking advantage of some environmental permitting that had already been granted for a previous infrastructure effort at the site enabled working around weather constraints, better manage field logistics, and otherwise avoid delays. Technology was also applied to facilitate and reinforce collaboration: A highly synchronized CAD environment was implemented to ensure coordination among designers and specialty consultants.

The project team’s designer of record implemented communication procedures to facilitate timely response to owner and design-build team management queries and requests. “Both incoming and outgoing requests for information could be answered quickly by the various stakeholders of the project, permitting design work to continue without interruption,” explains Cannon Design Associate Principal Mark Farmer AIA, LEED AP.

“We were blessed with the perfect storm – in a good way – with the people

on the project,” Rissler remarks, noting the “positives” that partnering, in terms of promoting interaction and operating in a manner conducive to solid communications, help in dealing with the complexities and challenges that completing a project of this magnitude present. “Developing relationships helps us work more collectively to get there.”

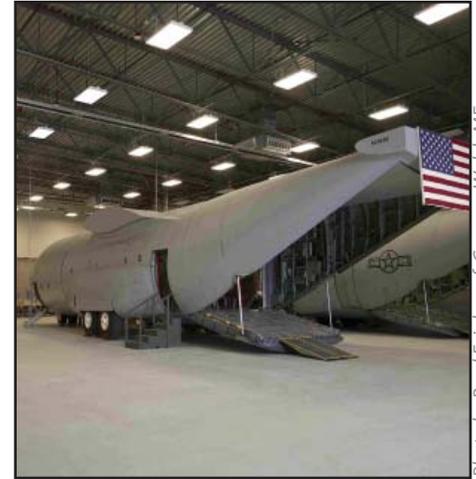


Photo by Brad Feinknopf, Cannon-Walsh ME

*Building 840's high-bay space is designed to accommodate USAFSAM aeromedical evacuation training for flight nurses, medical technicians, and critical care air transport teams using these C-130 aircraft simulators.*

# Photographer presents images of 2011 floods during levee safety conference

*By Carol Labashosky, public affairs*

Steve Hecklinger presented his photographic images of the 2011 floods during the Louisville District levee safety conference held in Jeffersonville, Ind., Nov. 30. Hecklinger traveled around western Kentucky in a region known as Jackson Purchase which includes Smithland, Ky., around the Ohio River to Wickliffe, Ky. He gained a unique and up-close perspective on the record-breaking rainfall in the area and shared it with local levee sponsors from a four-state area.

“I thought somebody should be capturing this historic event,” Hecklinger said. “I wanted to share what I did just as the people did from the 1937 flood.”

Traveling through the soggy area, the photographer took pictures of flooded homes and businesses but also came upon scenarios of animals or road signs juxtaposed in ironic ways such as ducks swimming next to a yield sign or a squirrel with

a water-logged droopy tail.

“One emergency official gave me only five minutes worth of access in a risk area.” It was enough time for him to snap a shot of water lapping dangerously high on property.

Hecklinger’s motivation for this type of dangerous assignment was to provide an archive for years to come and to share his photojournalistic art form with those who haven’t experienced the circumstances of a flood. He said he gravitates to high risk weather scenarios and occasionally “storm chases” to get close to the action.

“It’s just by chance that this event occurred at a time I was able to cover it. I went to Paducah City Hall to hear the state of emergency declaration April 25 not knowing or intending to make a flood collection. I simply ran around taking interesting shots. Other people started asking me to go to other areas for pictures.

My family would suggest areas, so off I went. After 20 days mostly soaking wet, I had 2,000 pictures of western Kentucky and southern Illinois.”

The photographer gave a similar presentation to the Commonwealth of Kentucky’s Governor’s office earlier in the year.

For information on more of his 2011 flood images, you can go to [www.capturedvisuals.com](http://www.capturedvisuals.com).



Cairo Rd. McCracken County KY May 7 2011

# 2012: A look at ISO recertification

By John Neville, public affairs

When it comes to completing projects, the Louisville District (LRL) does what it says it will do, and it's been making that guarantee to its customers for more than 200 years. Its quality control methods have evolved over the years, but since 2002, the district has applied its certification in International Organization for Standardization (ISO 9001) to guarantee world-class work to USACE customers.

## What is ISO

ISO 9001 refers to a family of international standards that represent a consensus on good management practices with the aim of ensuring the organization can consistently deliver the product and services that meet the client's quality requirements. The collection of standards explains what's needed to define, establish, maintain and improve an effective quality management system. The standards don't define an organization's process; the organization defines its own system.

"That is why the standards are appropriate or useful for any type of organization whether it be a multinational manufacturing company, a public utility or a government agency," said Louisville District Deputy Chief for Planning, Programs and Project Management Division Darrell Nation. "The standards ask you to describe your quality system, follow and document the system and then evaluate the results for effectiveness and make improvements as needed."

The district began its ISO 9001 certification quest in 1995, focusing first on the construction division and then on the engineering division. Certification was completed 18 months later. While certifying the two divisions was a step toward delivering a better product, compliance with ISO was not an easy chore, according to Nation. Employees found themselves burrowing through a large ISO manual that contained a cumbersome 14-step checklist. And, engineering and construction each had their own manual, even though both were involved on the same projects. Employees had to make sure their own quality control processes complied with the 14-step ISO standards.

In 2000, then District Commander Col.

Robert Slockbower believed LRL could deliver a better product if all of the district's divisions were ISO 9001 certified, according to Nation.

Unlike engineering and construction's certification earlier, Nation believed there was an easier way to comply with ISO.

"We did not just do what they did," he explained. "When construction and engineering got certified, they created this big manual. That manual was based on 14 requirements of ISO. Well it was a horrendous chore. When we started again in 2000, I knew we had to do something different. We had to create something in which ISO standards were inherent in everything [employees] did. I likened it to everybody having to focus on safety. Safety was not something extra that took a back seat; it was something you watched all day long.

So instead of creating a separate manual for ISO like construction and engineering did, Nation and his team of reformers modified each process so that they met ISO.

"The other way, they had to know what all the 14 different requirements were," Nation said. "The way we wrote this manual, we included each requirement and every process and didn't call it ISO. It was just part of the process."

## Who wrote the district's ISO processes?

Representatives from each district office met at the Horine Conference Center located on one of the highest geographical points in Jefferson County. Since different offices—real estate, contracting, engineering, internal review, etc.—are involved on each project, each office was included in writing ISO quality control processes.

"We knew that as you develop a design, engineering didn't do it all by themselves," Nation said. "Construction is involved, P3MD is involved, internal review, real estate and others are involved, too. So we all had a hand in each process."

The district's approach in writing its ISO processes was so successful that the Great Lakes and Ohio River Division and USACE Headquarters patterned their certification efforts after the Louisville District's.



## Implementation

Creating the district's ISO plan is half the battle. If leadership—at all levels—and their staffs don't buy into the system then certification is impossible. The independent third party auditing company ABS Quality Evaluations grants certification only if the applying organization meets the stringent ISO standards in the establishment and operation of its quality management system. In fact, ABS auditors denied LRL certification upon first review due to insufficient support from management, Nation said.

"I think leaders were giving it lip service," he said. "And they really weren't that much involved. They were letting their staff do all this stuff. I went back and had a frank conversation with Col. Slockbower who was commander at the time. He was also the one who initiated (ISO). So we circled the wagons and got all the leaders involved to let them know what they needed to do. We were trying to change the culture and the district cannot change the culture without the leaders leading it."

Leadership did get more involved, and the district attained certification upon ABS' second review, in the spring of 2002.

## How has it worked?

Executing the district's ISO quality control plan properly isn't easy, and there have been setbacks, according to Nation. One of the most important elements of any quality control process, and ISO particu-

*(Continues on Page 11)*

larly, is identifying mistakes and correcting them.

“Continual improvement is a continuing process,” he said. “We find things every day that we’ve done wrong. It hasn’t worked as well as I’d like, but we’re still working hard at it.”

**What do auditors look for?**

The district’s ISO plan is audited every year and is recertified every three years; it is up for recertification in 2012. When the ABS does audit, its auditors look for instances where the district isn’t adhering to its quality control plan, or they are tracking specific customer complaints. The latter is defined as a non-conforming product that demands more than a correction.

You don’t just satisfy the customer in that one instance, because if it’s a systemic issue then you need a corrective action

that will correct it for those instances that occur in the future, too,” Nations said.

“People were alarmed at first about the non-conformance reports, but that’s how you improve. If you don’t want to report them, you’ll keep making the mistakes over and over again.”

**Why is it important that ISO recertify in 2012?**

The district originally sought certification for several reasons. The district wanted to provide a quality product and it wanted to remain competitive with other service providers. Also, other government organizations, including the Navy and NASA, were attaining ISO certification around the time the district began its process, and, Nation said, the district was hoping to pick up NASA as a customer. Matching a potential customer’s quality

control standard bodes well when seeking a partnership. Now, in 2012, the district again seeks ISO recertification, and past reasons remain relevant.

“ISO certification means we’ll do what we say we will do,” said Dottie Krause, Louisville District program manager for regional business processes. “By using the procedures you’re establishing a baseline for anything that happens after that. If you start off by having a standard that says, ‘This is the way we’re going to do business,’ then everybody knows that. It’s communicated. It’s well known. ISO certification fully supports our quality pledge and commitment to [USACE Headquarters] and our customers and stakeholders to say what we will do and then do as we promised while continually improving along the way.”

# National Levee Database an extraordinary resource

*By Carol Labashosky, public affairs*

Army Corps of Engineers headquarters officially opened the National Levee Database (NLD) to the public, local levee sponsors and media on Oct. 27. The NLD was authorized by the Water Resources Development Act of 2007 which called for a comprehensive database of the nation’s levees. The NLD is available at <http://nld.usace.army.mil>

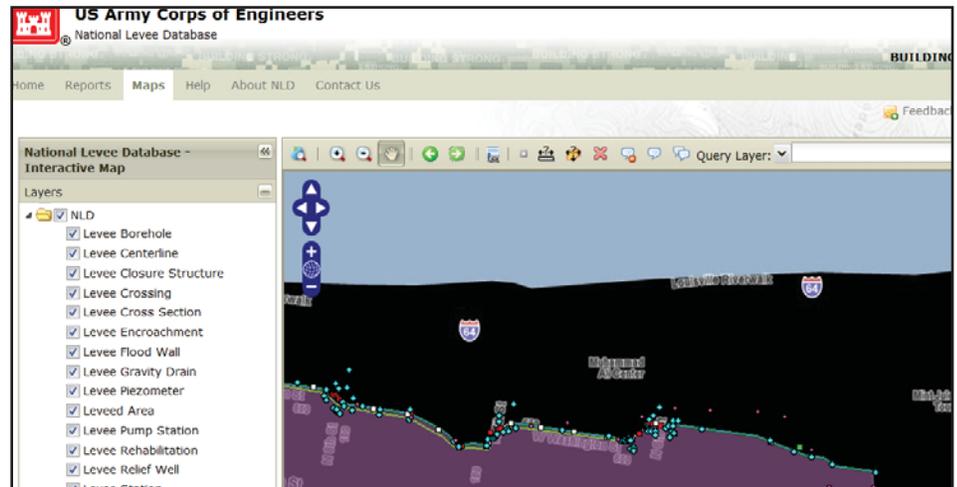
The Louisville District did the bulk of its work on the NLD during 2007 identifying components for federally constructed levees, fact checking and doing quality control to the database while contractors input a tremendous amount of data. Then, they followed up with non-federal levee data in 2009. Levee safety team members and Emergency Operations Center staff Chris Alvey, Paul Deatruck, Dan Frank, Chris Neutz and many other personnel from other disciplines assisted with the database.

In addition to standard notifications, the Louisville District levee safety team goes the extra mile by planning to assist local levee sponsors to learn the ropes of the database during their annual levee safety conference in December.



John Neville

*Flooding along Levee Unit 5 during the spring floods of 2011.*



*A screen shot of a portion of the Louisville flood protection system off the new National Levee Database. Layers are placed indicating components listed at the left hand margin.*



# Corps raises first wind turbine at Army Reserve Center

By Jon Fleshman, planning, programs and project management

Commissioning of the Army Reserve's first wind turbine got underway in November at the Butte, Mont., training center built by the Louisville District and overseen by Project Manager Greg Cardwell.

The Army Reserve and Corps of Engineers Sustainability and Energy Efficiency Policy states that after maximizing the energy efficiency of building systems, renewable energy will be considered to achieve further reductions, with net zero being the ultimate goal.

The 50-kilowatt generator powered by wind turning the turbine's three almost 30-foot blades is expected to generate a minimum of 11.5 percent of the energy needed for the entire Butte Army Reserve Center campus. The power that is not immediately required is sent into the electrical grid and the



First Sgt. Thomas Hart, Army Reserve

local utility company provides a credit for that power.

Not part of the center's initial design, about \$271,000 of available

contingency funds was used to design, buy and install the wind turbine. The contractor was Swank Enterprises out of Valier, Mont.



# Holiday Safety Tips

Source: November Strongpoint

The U.S. Army recently launched its 2011 Fall/Winter ‘Take 5 for Safety’ Campaign to educate Soldiers, civilians and family members that taking just a little time to think things through – five minutes, five seconds or even shorter or longer– can make a tremendous difference in protecting ourselves, our family, and our co-workers against accidents.

## ‘Take 5 for Safety’ Campaign

The team at the U.S. Army Combat Readiness/Safety Center has developed campaign materials designed to help leaders and individuals at all levels understand and control the specific hazards of the coming seasons through the use of feature articles, posters and videos focusing on seasonal topics like winter driving, tactical vehicle safety, hunting, cold injury and safe celebrating, plus many more. The complete Take 5 for Safety campaign toolkit is available online. For more information on staying safe and healthy, visit <https://safety.army.mil/> on the web.

## Snow/ Ice driving tips:

- Accelerate and decelerate slowly. Apply the gas and brakes slowly to maintain traction and avoiding skids.
- Don’t stop if you can avoid it. If you can slow down enough to keep rolling until a traffic light changes, do it.
- Don’t power up hills. Applying extra gas on snow-covered roads just starts your wheels spinning.

- Drive unimpaired. Naturally, don’t drink, but also consider effects of medicine, fatigue, and stress before driving.
- Above all, if you really don’t have to go out, don’t. Even if you can drive well in the snow, not everyone else can.

## Safe Celebrating

- Plan ahead for holiday parties and events—if you will drink, make sure you have a ride or a safe way to get home.
- If you have a party, make sure to provide a variety of good non-alcoholic drinks for the designated drivers.
- Fatigue makes winter/wet weather driving worse; try having parties early—and be well-rested when you go out.

## Holiday Safety

- Make sure lights are UL approved and inspect them for damage early, before decorating day.
- Check smoke detectors, before the increased fire hazards of heaters, holiday decorations, fireplaces, etc.
- If you buy a holiday tree, make sure it is fresh with no falling needles. Put the cut end of the trunk in water within 30 minutes of cutting or it may seal off and not take water.

“Colder months present unique challenges for keeping our Soldiers and their family members safe. By working together, we can reduce the risk in all fall and winter activities. Make a plan, get the right gear and have a safe and happy fall and winter”

-Brig. Gen. William T. Wolf,  
Director of Army Safety



# New faces and fond farewells

## New September/October employees

Mette Bahde, Office of Counsel  
Kimberly Compton, Office of Counsel  
Jemarr Potts, Equal Employment Opportunity Office  
Stephen Canfield, Engineering Division  
Darrell Neal Jr., Construction Division  
Grady Stout, Operations Division  
Karl Schoening, Operations Division

## September/October retirements

James Hite, Operations Division  
Jane Ruhl, Planning, Programs, and Project Management

## By the numbers

### Louisville District totals

- 1,267 employees
- 16 Department of the Army interns
- 27 volunteers deployed

## Employees honored at End of Year Ceremony

By Sarah Mattingly, public affairs

The Louisville District held its end of year ceremony Oct 12, celebrating the end of a successful fiscal year and the kick-off of the Combined Federal Campaign (CFC).

In the courtyard outside the Mazzoli Federal Building District Commander Col. Luke Leonard recognized the district for its exemplary work throughout the past year, praising the completion of BRAC, the spring flood response, district support of overseas contingency operations and other significant achievements.

Leonard also recognized individuals with awards ranging from headquarters and division level awards to length of service.

Donna Wooten of Metro United Way addressed the district, thanking employees for past contributions to the CFC and encouraging them to once more be generous, and children from Uncle Sam's Place sang Happy Birthday to mark the 50th anniversary of the campaign.

Following the ceremony, district leaders served a barbeque lunch to employees, and gift baskets were auctioned to raise money for the CFC.



# 'Tis the season

*Ring in the holiday with a festive brunch*

## **Grandma's Gingerbread Pancakes**

### **Ingredients:**

- 1 1/2 cups all-purpose flour
- 1 teaspoon baking powder
- 1/4 teaspoon baking soda
- 1/4 teaspoon salt
- 1/2 teaspoon ground dried ginger
- 1 teaspoon ground cinnamon
- 1 egg
- 1/2 teaspoon vanilla extract
- 1/4 cup molasses
- 1 1/2 cups water

### **Directions:**

1. Whisk the flour, baking powder, baking soda, salt, ginger and cinnamon

in a bowl; set aside. Beat the egg in a separate mixing bowl with the vanilla and molasses until smooth. Whisk in the water until completely incorporated. Stir the flour mixture into the molasses mixture until just combined — a few lumps are okay.

2. Heat a lightly oiled griddle over medium-high heat. Drop batter by large spoonfuls onto the griddle, and cook until bubbles form and the edges are dry. Flip, and cook until browned on the other side. Repeat with remaining batter.



## **Homemade Hot Chocolate**

### **Ingredients:**

- 3 cups milk
- 1/3 cup semisweet chocolate, grated
- 1 tablespoon white sugar
- 1/2 teaspoon ground cinnamon
- 1 egg

### **Directions:**

1. Put milk into a microwave-safe container and cook on high in microwave for 2 minutes. Mix in chocolate,

sugar and cinnamon. In a small bowl, whisk an egg until smooth, then mix it into the chocolate mixture.

2. Return to microwave and cook on high for 3 to 4 minutes or until foamy (be careful not to let it boil.) Whisk until smooth and pour into 3 mugs. Garnish with a sprinkle of cinnamon if desired.



## **Baked Brunch Omelet**

### **Ingredients:**

- 1/2 loaf white bread, cut into cubes
- 1 1/2 pounds Cheddar cheese, shredded
- 1 cup cubed cooked ham
- 8 eggs
- 2 cups milk
- 1 pinch salt
- 1 dash hot pepper sauce, or to taste
- 1/4 cup chopped green onion

### **Directions:**

1. Preheat oven to 350 degrees F.

Lightly grease a 9x13 inch baking pan.

2. Place half of the bread cubes on bottom of baking pan. Sprinkle with half of the ham and then half of the cheese; repeat.

3. In a large bowl, beat together eggs, milk, salt, hot sauce and green onions. Pour egg mixture into pan.

4. Place pan on top of a baking sheet with a rim and place in oven. Pour water into baking sheet and bake for 60 minutes, or until eggs have set.



# Frequently Asked Questions

The Louisville District Public Affairs Office receives many inquiries. Below is the answer to a question the district is often asked.

By Vanessa Whitworth, public affairs

**Q:** How can I become a volunteer at Corps recreation and natural resources areas?

**A:** Corps lakes offer many volunteer opportunities in recreation and natural resources management. Volunteers can serve as park and campground hosts, staff visitor centers, conduct programs, clean shorelines, improve fish and wildlife habitat, maintain park trails and facilities and more.

Click the Volunteers in Action link to see a few examples of volunteer activities at Louisville District Lakes. Volunteers in Action: [www.lrl.usace.army.mil/opto/article.asp?id=80&MyCategory=157](http://www.lrl.usace.army.mil/opto/article.asp?id=80&MyCategory=157)

Interested individuals can call the specific lake at which they want to volunteer or get help at the Volunteer Clearinghouse (1-800-VOL-TEER) or by visiting [www.lrn.usace.army.mil/volunteer/](http://www.lrn.usace.army.mil/volunteer/)



Corps volunteer, Edie Wright, works on a display in the Carr Creek Lake Visitor Center in Kentucky. Wright is one of many Corps volunteers who contribute their talents to Corps projects.

## Louisville District Open House



Open House attendees gather at the Louisville District Open House in 2008. The 2012 Open House will focus on Energy and Sustainability.

The 2012 Louisville District Open House will be held at the Louisville Marriott Downtown Jan. 25 from 8 a.m. to noon.

This year's topic will focus on Energy and Sustainability. The Open House will also provide a projection of upcoming Louisville District military projects.

Registration is available online at [www.lrl.usace.army.mil](http://www.lrl.usace.army.mil) under the special events section.

There is no fee to attend the Open House.

Architectural engineers and contractors will be able to interview with Louisville District office personnel from 1 to 3 p.m.

For more information on the 2012 Louisville District Open House please contact:

**Michael Moore**  
**(502) 315-7094**

or

**Jennifer Rushing**  
**(502) 315-6833**

## Snapshot from the past



In March of 1927 workers clean up the barge deck while sitting in the lock chamber at the former Lock and Dam 41, now known as McAlpine Locks and Dam, in Louisville, Ky.

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