



# Tower Times

Rock Island District's News Magazine

December 2011

## Out with the old

New miter gates installed at Lock & Dam 21

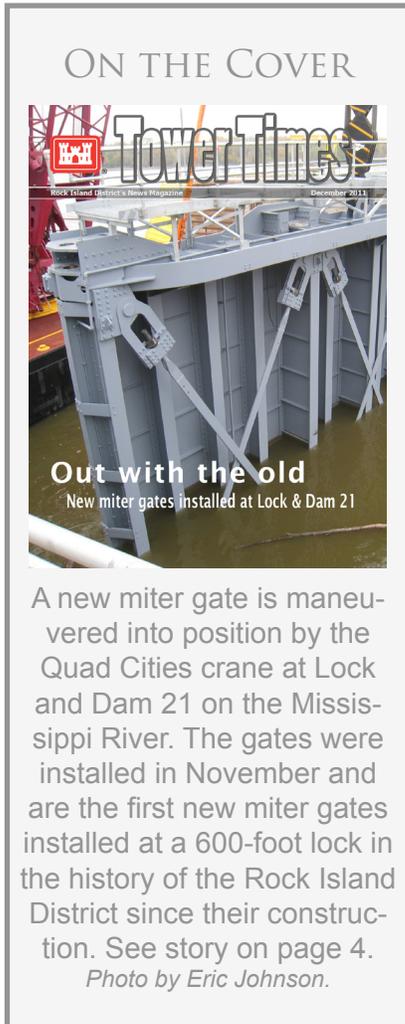


**US Army Corps  
of Engineers** ®  
Rock Island District

# Tower Times

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## *Tower Times*

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*A message from....*

## Colonel Shawn McGinley, District Commander



# 2011 a year of challenge and transition

The saying goes – time flies when you are having fun. And, that sentiment becomes even more true when busily executing a significant workload. From my perspective, as we near the end of the year, 2011 at the Rock Island District came and went in a flash.

This year could be described as one of transition. After spending many of the past few years awarding and executing funds from the American Reinvestment and Recovery Act, this year saw much of that money in action as most of those funded projects have entered the construction phase and a few have even been completed.

Also, the Corps of Engineers finished up work on the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS), one of the largest civil works projects ever undertaken. Our role, through the Rock Island New Orleans Support office (RINOS), was more or less complete at the end of 2010 but there was still some work to be completed this year to help the Corps meet its goals with regard to HSDRRS.

With ARRA and RINOS work behind us, we took on the task of transitioning into a new age of funding, one that will often see less money. We weathered two potential government shut down situations during the year which spotlighted our need to look at the coming fiscal years in a new light. I see the coming years as challenging for everyone in the federal government. We have been looking outside of our normal areas of operation to find potential workload that can help bolster our bottom line, whether that is furthering our support to Arsenal Island or creating opportunities through Regional workload.

Transition was also seen in our leadership ranks. We were lucky enough to host the Chief of Engineers, Lt. Gen. Robert VanAntwerp just before his retirement. His last visit to a district was here which completed a tenure in which he visited every district within the Corps. He saved the best for last. We also hosted Maj. Gen. Michael Walsh, our Mississippi Valley Division commanding general. Shortly after his visit, Gen. Walsh moved on and Maj. Gen. John W. Peabody has taken over command.

Much of 2011 was adapting to change but one thing that was famil-

iar was the threat of flooding. Spring brought contentious times within the District as we readied for the pending high water. Locally, the Quad Cities experienced its sixth worst flood of record. But, that flooding paled in comparison to what happened to the south as some of the worst flooding in history hit places like Cairo, Ill., and New Madrid, Mo. Folks from Rock Island District responded to assist with Operation Watershed and the Missouri River flooding. Nearly 40 people from our District deployed to assist in eight different emergencies outside our District. Efforts by our emergency management people, as well as logistics and contracting, shined as we proved the value of regional support. In the face of extreme adversity, our team was there to help and I was proud of our efforts.

Our operations on the Illinois and Mississippi Rivers faced many challenges throughout the year. Almost all of our locks on both rivers experienced some sort of shut down during April due to rising waters. Our recreation areas experienced the same. Maintenance crews were diligent performing invaluable rehab on miter gates and performing countless other repairs to ensure our lock and dam system remained functioning.

Although the budgetary challenge has become apparent, we are still executing a significant budget. In FY11 the Contracting Division performed 1,644 contracts actions and more than



*Continued on page 11...*



**A new miter gate is maneuvered into position at Lock and Dam 21 by the Mississippi River Project Structures Maintenance Unit. The new gates were installed in November and are the first new miter gates in the Rock Island District at a 600-foot lock since their construction. Photo by Aaron Dunlop.**

# Out with the old, in with the new

By Hilary Markin, Editor

**F**or the first time in the history of the Rock Island District, new miter gates have been installed at a 600-foot lock in the Mississippi River. After years of repairing infrastructure that had exceeded the design-life, the District is one step closer to operating more reliably and efficiently.

The miter gates at Lock and Dam 21 were replaced in November by the Mississippi River Project Structures Maintenance Unit.

“It was really exciting,” said Dennis Shannon, chief of locks and dams, Mississippi River Project. “It took a lot of work to get there but it was well worth it.”

The process started in 2006 when the replacement of miter gates worked its way to the top of the backlog of maintenance list. Funding was made available and design engineers got to work preparing the plans and specifications for the new miter gates at three initial locks.

The gates were designed using Building Information Modeling (BIM), the first time the District used it for a large-scale civil works project.

“A design template was created for the miter gates,” said Eric Johnson, lead structural engineer, Engineering and Construction Division, Rock Island District. “The template lays the groundwork to ensure system wide consistency and reduce the costs associated with designing the remaining gates.”

The District has 39 vertically framed miter gates at various gate heights and engineers used 3-D BIM to design the gates and make them adaptable. They are designed to be maintenance

friendly using a bolted design so parts can easily be unbolted and replaced when damaged by a barge impact or worn from old age. Many of the parts were also designed to be interchangeable between the different gate heights at the various locks. This concept allows the Mississippi River Project staff to stockpile parts for easy replacement and repair of the miter gates which will reduce costs and minimize interruptions to navigation.

“It was truly a team effort,” said Shannon. “Everyone logged some long hours to make it happen but it isn’t every day you get to be a part of history.”

This project is part of a Corps-wide effort to standardize as much as possible by using universal interchangeable designs and parts.

“We have had a lot of regional interest,” said Bill Gretten, operations manager, Mississippi River Project. “The Great Lakes and Ohio River Division have been over to see what we are doing and hope to replicate it in their area.”

The new miter gates will serve the District for many years to come and will be easier to maintain with interchangeable replacement parts and better operability.

The lessons learned during the install at Lock 21 will allow engineers to make adjustments for the next set of miter gates set to be installed next summer at Lock 20 followed by Lock 22 in 2013. A contract has also been awarded for the fabrication of new miter gates for Locks 17 and 18. 

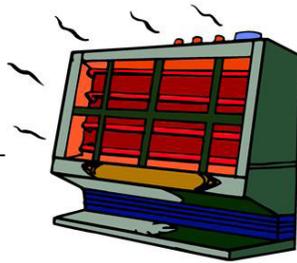
# SAFETY CORNER

## Safety tips for a safe & healthy winter

In the winter, more home fires are started by heating equipment than any other cause. Portable and electric space heaters are the most dangerous. But it is possible to be warm and safe this winter by following these tips.

### Portable space heaters

- Make sure your heater has been tested for safety. Look on the bottom for a label such as ETL (Intertek Group), UL (Underwriters Laboratories) or CSA (Canadian Standards Association).
- Space heaters need to have plenty of space around them.
- Place space heaters at least three feet away from anything that can burn - including furniture, people, pets and curtains.
- There should always be an adult in the room when a space heater is on. Turn off space heaters before leaving a room or going to sleep.
- Supervise children and pets at all times when a portable space heater is in use.
- Never use space heaters to dry clothing or blankets.
- Only use space heaters that have an automatic shut off switch when tipped over (found on most newer units).
- Never use extension cords with space heaters; they should be plugged directly into the receptacle.



### Fireplaces and Wood Stoves

- Burn only seasoned hardwood like oak, ash or maple. Do not burn trash, cardboard boxes or Christmas trees because these items burn unevenly, and may contain poisons or cause a home fire.
- Have a professional chimney sweep inspect chimneys every year. They will fix any cracks, blockages and leaks and clean out any build-up in the chimney that could start a fire.
- Creosote logs can be used to help reduce the build-up of creosote in fireplaces. Check labels to make sure the log has been tested and approved by UL. Even if you use creosote logs, fireplaces should still be inspected by a professional each year.
- Open flues before fireplaces are used.



- Use sturdy screens or glass doors to keep embers inside fireplaces.
- Install at least one smoke alarm on every level of your home and inside or near sleeping areas.
- Keep young children away from working wood stoves and heaters to avoid contact burn injuries.

### Carbon Monoxide (CO) Poisoning Precautions

Carbon monoxide is known as “the silent killer.” You cannot see it, smell it or taste it. CO claims the lives of nearly 300 people in their homes each year according to the U.S. Consumer Product Safety Commission. CO is a deadly gas that is produced by fuel-burning heating equipment, such as furnaces, wood stoves, fireplaces, and kerosene heaters. Follow these guidelines to help keep your family safer.

- Install at least one CO alarm near sleeping areas.
- Have a trained professional inspect, clean and tune-up your home’s central heating system and repair leaks or other problems. Fireplaces and woodstoves should also be inspected each year and cleaned or repaired as needed.
- Keep gas appliances properly adjusted and serviced.
- Never use an oven or range to heat your home.
- Never use a gas or charcoal grill inside your home or in a closed garage.
- Portable electric generators must be used outside only. Never use them indoors, in a garage or in any confined area that can allow CO to collect. Follow usage directions closely.



### Be “Ready-to-Go” or “Ready-to-Stay” if the Power Goes Out

- Stock up on batteries, flashlights, portable radios, canned foods, manual can openers, bottled water and blankets.
- Use flashlights instead of candles to avoid a possible fire hazard.
- If the temperature outside is below freezing and your home has no heat, run water at a trickle to help prevent pipes from freezing and bursting.
- Store perishable food outside in the snow or in an unheated outside building if the power goes out. 



Information from the Home Safety Council. For more information visit [www.homesafetycouncil.org](http://www.homesafetycouncil.org).



Engineers from the Rock Island District used photographs of the current Dahla Dam outlet works and valve house in Afghanistan as references while designing new components to accommodate the raise of the dam.

# Designs raise height of dam

By Hilary Markin, Editor

Reaching across international borders and helping our neighbors is a unique experience. However, it is one that we are doing more and more, and not just for those who are close to us, but those who are half-way around the world. This summer the Rock Island District was sought for their expertise with water resources design to help with a project in Kandahar Province in Afghanistan.

The Omaha District contacted the Rock Island District to help support their efforts to raise a 59-year-old dam on the Arghandab River. The Dahla Dam provides water for irrigation to what once was known as the breadbasket of Afghanistan. Thirty years of war and resulting neglect have destroyed agricultural areas and farmers are waiting for a reliable water supply that will help feed their families and bring income.

The Afghanistan National and Kandahar Provincial governments have identified the Archandab Irrigation Rehabilitation Project, which includes Dahla Dam, as a key priority for national reconstruction.

The project has two main objectives to improve the water distribution and control. The first is repairing and raising the Dahla Dam and its reservoir pool, which has lost 30 percent of its capacity due to accumulated sediment. The second is repairs to the downstream irrigation network, which was losing up to 60 percent of the water flow because of deficiencies in the existing infrastructure.

The Afghan National and local governments, International Security Assistance Force (ISAF) Regional Command South, the Canadians, Afghanistan Engineer District (AED), Omaha District and civilian contractors are all working to make this happen.

As the Canadian government worked on the irrigation network, the ISAF Regional Command South asked the AED-South to study how to increase the storage capacity of Dahla Dam. AED in-turn collaborated with stateside Corps Districts to complete the study on a fast-track. This coming after three options were identified by the Canadian government with increasing the height of the dam becoming the most viable.

Omaha reached out to Rock Island and Huntington District to help complete the design and prepare the contract package for raising the dam.

“By January 2012, Omaha will provide a contract package for the dam raise, which will take place in two separate phases beginning in fiscal 2012,” said Steve Bredthauer, AED-South project manager.

The Rock Island District was tasked with designing new water control structures and components to accommodate the dam raise. That means a new upstream control tower with closure gates, a new downstream valve house containing irrigation control valves, and the mechanical and electrical means to operate this equipment.

“The designs are replacing existing structures to accommodate



**Left, an aerial view of the Dahla Dam. Below, is a close-up of the current intake tower located on the far right side of the dam on the Arghandab River.**



# in Kandahar Province

the raising of the dam,” said Brent Anderson, structural engineer, Engineering and Construction Division, Rock Island District. “A challenge of the work MVR is performing is designing new components as part of an existing dam system, and designing these components to meet current Corps standards.”

The timeline and location of the project have also proved challenging.

“We have very little as-built drawing information of the existing dam which required the team to make a lot of assumptions,” said Anderson. “We also had very little geotechnical information.”

Another challenge is designing the new system to construction standards used in the region, and not the American standards the Rock Island team is familiar with including metric units.

The team from Rock Island has only talked with the teams working on the project over the phone and attended design meetings at the Omaha District office but no site visits to the Dahla Dam. This has added a unique perspective to designing components of a dam structure and required as much effort in coordination as it did in the design.

Omaha District scheduled weekly coordination teleconferences to ensure communication among team members. However, with the fast-tracked timeline for design, many decisions could not wait a week and required interim coordination to ensure the project remained on schedule.

The design also includes new piping for a future project to provide municipal water to Kandahar City which is only 21 miles southwest of Dahla Dam.

Huntington District was tasked with designing the emergency spillways, Omaha District designed the dam raise and road realignments, and the Hydropower Design Center provided a design for the new hydroturbine in the valve house.

The completed plan and specification package for the project was due to the Omaha District on Dec. 22.

“There have been a lot of team members working hard to meet the aggressive schedule,” said Anderson.

Although this project has been a challenge it has also been rewarding. Working on a project that will benefit a region of the world that many will never visit but knowing that it will make a difference to those who live there. 

*Information for this article taken from article published in the May Engineer Update article “Dam vital to Kandahar Province,” written by Joan Kibler, Afghanistan Engineer District South.*

*Photos courtesy of the Omaha District of the U.S. Army Corps of Engineers.*

# DISTRICT COMMANDER

Each month the Rock Island District Incentive Awards Committee selects an employee who has gone above and beyond their normal duties or made a significant accomplishment. All employees are eligible and all employees may nominate someone for an award.

The following employees were recognized over the last year for their outstanding efforts and achievements that continue Building Strong the Rock Island District.

Having a “can-do” attitude is an important skill when working on a team and also helps overcome tough challenges. **Paul Braddock**, Mississippi River Project, Operations Division, was awarded the March District Commander’s Award for keeping a positive attitude while making a significant repair to the transducer housing on the survey vessel Hinds. His quick response and ability to provide realistic alternative solutions minimized the amount of down time and improved the overall strength and integrity of the vessel hull.



In April, an employee’s personal touch and dedication earned him the April District Commander’s Award. **Jonathan Wuebker**, Saylorville Lake, Operations Division, responded to a fire at Cherry Glen Campground in which the owners suffered skin burns and a total loss of their camper. Wuebker provided them some clothing, assisted them in finding lodging and ensured they received follow-up medical care for their injuries. He responded with speed, compassion and competence and added a personal touch.



Working under the crunch is something we all do from time to time but doing so when details count can be stressful. **Joe Fratamico**, Design Branch, Engineering and Construction Division, met the challenge and received the May District Commander’s Award for his efforts. His dedication to the Greenbelt Fort Dodge project ensured the project met all engineering guidelines, Americans with Disabilities Act requirements and ensured that design layout and details met all state and federal requirements. Due to his efforts the project was on schedule and met the sponsor’s expectation. Fratamico continually goes above and beyond to assist others with projects and has a sincere dedication to duty.



Stepping up to help others in a time of need is rewarding but requires hard work. **Beth Crutcher**, Emergency Management Division, received the June District Commander’s Award for her efforts in managing the Regional Flood Fight Center. In addition to her regular duties, Crutcher oversaw the procurement and deployment of flood fight supplies and equipment to the Memphis, Vicksburg and New Orleans Districts during the flood on the lower Mississippi River. Her dedication and outstanding effort have set the standard for the level of service the District provides to the region.



*Good things are happening all over the District - please take a moment to recognize fellow employees who employees. If you have questions regarding the criteria or format to*

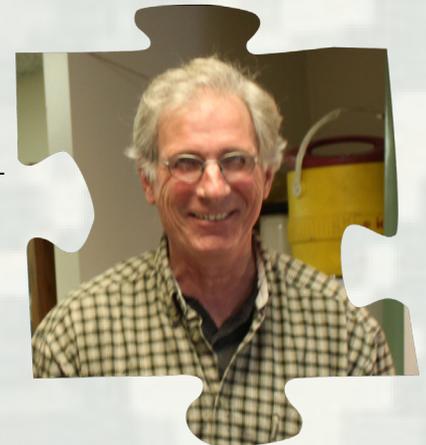
# ANDER'S AWARDS

Always willing to help others is a great attribute, one that helped **Dawn Ewan**, Programs Management Branch, Programs and Project Management Division, earn the July District Commander's Award. Her dedication and diligence to all of her duties ensures that tasks are completed on time and above the bench. Ewan's wealth of knowledge, attention to detail and positive attitude contribute greatly to the District.



Having an attitude of doing what's right, not for recognition, but because it is the right thing to do is an important value. For **Jeffrey Gibbs**, Lock and Dam 21, Operations Division, that is something he lives by and one reason why he was awarded the August District Commander's Award. Gibb's daily work ethic sets an example for other employees. His dedication to his job and genuine concern for the welfare of employees cause him to go above and beyond what is required. In August, Gibbs also assisted with a boating fatality that occurred on the Mississippi above the dam. He represented the District with integrity and compassion and shared his knowledge of the river and lock and dam to assist with the recovery effort.

**George Millar**, Geotechnical Branch, Engineering and Construction Division, was presented the September District Commander's Award for leading the effort to complete subsurface exploration and testing of river borrow sites at the Birds Point-New Madrid Floodway in Memphis District. His efforts included task order coordination, site evaluation, supervising exploratory borings and testing, completion of field logs and laboratory tests. The District was specifically requested to complete the work due to our experience with hydraulic dredging and sand levee construction. Millar's effort is one of the many reasons why the District has a reputation as a leader in this area of expertise.



Coordinating large events with a multitude of complexities can be a challenge but one that **Lou Ann McCracken**, Mississippi River Visitor Center, Operations Division, met head on. McCracken was awarded the October District Commander's Award for her efforts in planning, coordinating and facilitating the America's Great Outdoors Initiative program in September. She coordinated the programming, scheduling of staff, marketing, materials and presentations for nearly 80 youth from the Quad Cities and the Assistant Secretary of the Army (Civil Works) Ms. Jo-Ellen Darcy who attended the event. McCracken was the driving force that contributed significantly to the events success.

*are making a difference and going the extra mile to Build Strong. All employees are eligible to nominate fellow submit a nomination please contact Ann Marie Roarty at 309-794-5436.*

# Around the District

## Sympathy ...



**Beth Peterson, 56**, of Woodburn, Oregon, passed away Oct. 22 at her home.

Peterson worked several years as a park ranger for the Corps of engineers at parks in Iowa, Illinois, Texas and Washington.



**Ronald Cavanaugh, 82**, of Dubuque, Iowa, passed away Nov. 8 at Mercy Medical Center in Dubuque.

Cavanaugh was employed by the Dubuque Packing Company and at Lock and Dam 11 for 30 years.

He also served in the U.S. Army during World War II.



**George Kensinger Jr., 73**, of Taylor Ridge, Ill., passed away Nov. 10 at Trinity Rock Island.

Kensinger started with the Corps in 1961 and served as the captain of 11 boats, ending with the Motor Vessel Bettendorf. He retired in December 1995.

He also served in the Army.



**Donald Johnson, 92**, of Rock Island, Ill., passed away Nov. 25 at Friendship Manor in Rock Island.

Johnson worked for the Corps of Engineers from 1960 until he retired.

He also served in the Navy during World War II.



From left Chris Hawes, John Hayes and John Ortlieb play catch on the lawn of the Clock Tower.

## Corps Flag Football team takes first place

A team comprised of Corps of Engineers' geographers, project managers and other recruits finished first in the Rock Island Arsenal Adult Flag Football League. After dominating most of their competition throughout the year, the Corps of Engineers met their archrival, the Army, in the league championship on Nov. 30. The two teams had met twice during the regular season, each winning a game. It was a hard fought game, but the Corps of Engineers came out ahead after scoring a game-winning touchdown at the end of regulation play. The team finished the season 8-1.

"The team fought hard all year; we faced some "tough" competition in the Army and Marines, but when it really mattered there was nothing stopping the Corps," said John Hayes, general manager and all-pro pass rusher.

The Corps' championship team was well represented by Jason Appel, Chris Haring, Chris Hawes, John Hayes and John Ortlieb. 

# Support & Sacrifice for Corps

Thanks to our employees who are deployed to the Afghanistan Engineer District - North (AEN) and the Afghanistan Engineer District - South (AES)!



Andrew Barnett, AEN



Robert Balamut, AEN



Charles Bauer, AES



Peter Corken, AEN



Mark Hoague, AEN



Celeste Iverson, AEN



Brian Lane, AEN



Mark Miller, AEN



Gordon Rush, AEN

## Commander's column, continued...

\$74 million was obligated. We will see the fruits of those labors in the years to come but this year Engineering and Construction saw several projects completed not the least of which was the Birdland Park Levee in Des Moines, Iowa. The nearly \$20 million project, which was a partnership with the City of Des Moines, provided significant improvements to the City's flood risk management. After construction began in summer 2010, we celebrated with a ribbon cutting in November of this year. It was one of many significant accomplishments and highlighted our organization's teamwork, both internally and externally, with our partners.

Our District celebrated another significant ribbon cutting in September when we celebrated the 25th anniversary of the Upper Mississippi River Restoration-Environmental Management Program and 100,000 acres of restored ecosystem. The event drew our most senior leader on the civil works side of the house – Ms. Jo-Ellen Darcy, the Assistant Secretary of the Army for Civil Works. Ms. Darcy was the keynote speaker as we celebrated the event in Dubuque, Iowa. It was a historic day for the District and highlighted our continued efforts in environmental management and ecosystem restoration.

We celebrated many other events throughout the year, from christening our newest motor vessel – the MV Rock Island, to

the completion of our first section 206 project at Ventura Marsh. All of those celebrations were a culmination of outstanding effort throughout our organization. So many people have a hand in accomplishing everything we do. Whether it is our Regulatory Division and the nearly 2600 permit actions received for review, or our Civilian Personnel Advisory Center and its efforts to bring on 51 new employees, everyone at the District plays a role in accomplishing our many missions.

Yes, 2011 went by in a flash. Challenge and transition has been the norm and will be for the foreseeable future. But, we have the workforce to meet any challenge. This year marked my last full calendar year in command of the Rock Island District. Not only has this year gone by in a flash, but so has the past two and a half. It has been a whirlwind for me and you have my commitment to finish the last part of my tenure stronger than when I started.

Please accept my most sincere wishes for a safe and joyous holiday season. Let's all take a moment to remember those who can't be home with family during the holidays -- the service members who are serving overseas and the nine men and women from our district who are selflessly serving in Afghanistan and Iraq. Thank you for all you do and let's get ready to make 2012 another banner year at the Rock Island District. Continue **BUILDING STRONG®**. 

DEPARTMENT OF THE ARMY  
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# Leadership Development Program - Level 1

The Rock Island District launched the newly improved Leadership Development Program (LDP) Level I in mid-December. The objective of the LDP program is to develop leaders at all levels. LDP I is a six month self-paced program open to all permanent employees who sit within the Rock Island District area of responsibility. Each six-month program will consist of a variety of learning tools including: a mentor/mentee pairing, readings, writing assignments, volunteer work, Army e-learning courses, etc.

The application process includes a supervisor approved training request in CEFMS (SF182). Applications will be accepted through close of business January 13, 2012, and should be e-mailed to the point of contact listed below as a PDF. Please visit the program's Web site at [www.mvr.usace.army.mil/PublicAffairsOffice/LDP1/LDP1Home.htm](http://www.mvr.usace.army.mil/PublicAffairsOffice/LDP1/LDP1Home.htm) to learn more about what the LDP Level I program has to offer.

Please contact Sara Paxson, Professional Development Specialist for more information or if you have questions at 309-794-5635 or [sara.r.paxson@usace.army.mil](mailto:sara.r.paxson@usace.army.mil). 

