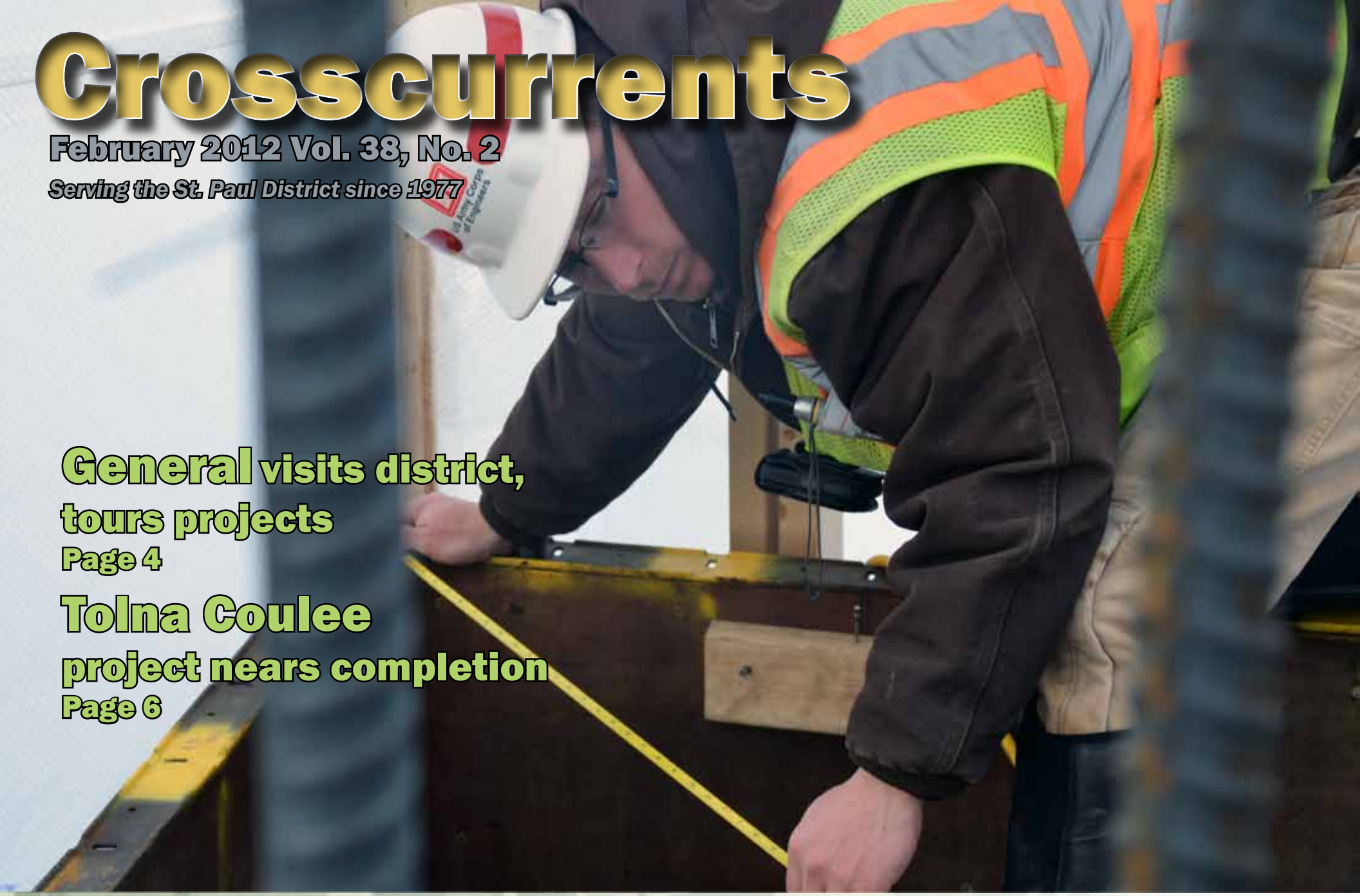
Crosscurrents

February 2012 Vol. 38, No. 2

Serving the St. Paul District since 1977



General visits district, tours projects

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U.S. Army Corps of Engineers
St. Paul District

BUILDING STRONG®

On the Cover

Jason Johns, engineering and construction, takes measurements at the Tolna Coulee project, near Tolna, N.D., Jan. 18. Johns has worked on the project as a quality assurance representative since the beginning, which was October 2011. The project is scheduled to be finished sometime in early April.
Photo by Patrick Moes

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Views and opinions expressed in *Crosscurrents* are not necessarily those of the Department of the Army or the U.S. Army Corps of Engineers.

Articles and photography submissions are welcome and must arrive by the 15th day of the publishing month for consideration. Submissions can be mailed or e-mailed.

Submissions should be in Microsoft Word format for all written copy and photos should be no smaller than a 5 x 7 at 300 dpi. All photographs appearing herein are by the St. Paul District Public Affairs Office unless otherwise accredited.

The mission of *Crosscurrents* is to support the commander's internal information program for the St. Paul District and its stakeholders.

Crosscurrents also serves as the commander's primary communication tool for accurately transmitting policies and command philosophy to the St. Paul District community and its customers.

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Crosscurrents

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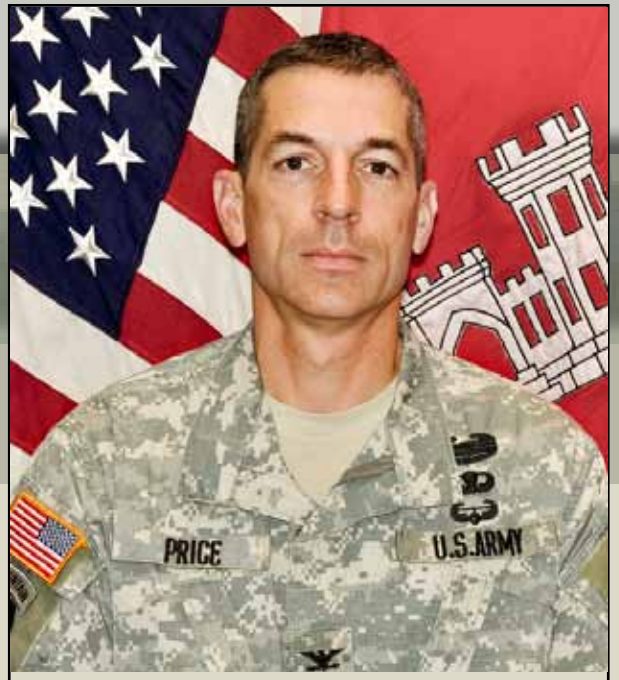


Col. Michael J. Price
U.S. Army Corps of Engineers
St. Paul District Commander

Team,

It's been a busy start to the new year. This month, I want to provide some insight on Mississippi Valley Division Commander Maj. Gen. John Peabody's recent visit to the district and talk about the budget.

From my perspective, the commanding general's visit went very well. One thing we portrayed to him is while the St. Paul District is part of the Mississippi River watershed; we also have three other basins that are not. In fact, the majority of our recent efforts have been devoted to the Souris and Red River basins. Peabody said he was pleased with the professional workforce and the reputation of the district. He has very high standards for professional service and he reminded each of us of the Army's Civilian Corps Creed. I encourage you to review the Creed and embrace its meaning. Finally, the commander impressed upon the district that everything we do and plan to do, must provide value to the nation.

The fiscal year 2012 budget is completed, and the work plan has been released from headquarters. In general, the district received the funding we need to execute our programs. However, we do have some shortfalls in a few areas, but the funding we received addresses many of our needs. One highlight for this year is that the district will execute its highest level of construction placement in its history — $145 million. This funding will essentially complete our Devils Lake, N.D., missions to include the embankment project and the Tolna Coulee structure. This effort will require a herculean effort, and support from our regional assets. We must execute this program and execute it safely.

The President's fiscal year 2013 budget was released, too. Overall, it looks quite similar to fiscal year 2012 with the exception that our general investigations account is about half of what it was last year, but we make it up in the operations and maintenance account. The thing to note is that the nation's economic environment is still quite volatile, and our leaders are making difficult funding decisions. One thing is certain, our nation's infrastructure is aging and maintenance is critical to our future.

The district continues to do great things and receive accolades from stakeholders and congressional members. Regardless of how we get funded, we continue to accomplish our mission. This is testament to the district's dedicated professional workforce.

Lastly, the division commander charged us all with being agents of change. Each of us should look for ways to improve our foxhole daily and think about areas where the organization can evolve. Together, we will embrace the future and continue providing value to the nation by offering technically sound and science based solutions.

BUILDING STRONG!
ESSAYONS!

The new division commander visits the district, shares his vision

Story by Patrick Moes

The newly appointed Mississippi Valley Division commander visited areas within the St. Paul District to get an introduction into the ongoing projects and challenges facing the district Jan. 30 to Feb. 1.

Maj. Gen. John Peabody, who took command of the division in November 2010, toured areas around Devils Lake, N.D., and Fargo, N.D., as well as discussed flooding issues within the Souris River Basin with St. Paul District professionals and Col. Michael Price, district commander.

Peabody said the tour was extremely important, because it gave him an on-the-ground perspective of the flooding issues facing the district and the State of North Dakota, and he looked forward to continuing to build the relationships that have been established with all of the stakeholders. “If you want to understand how water flows, you’ve got to get out and talk to the local farmer,” he said.

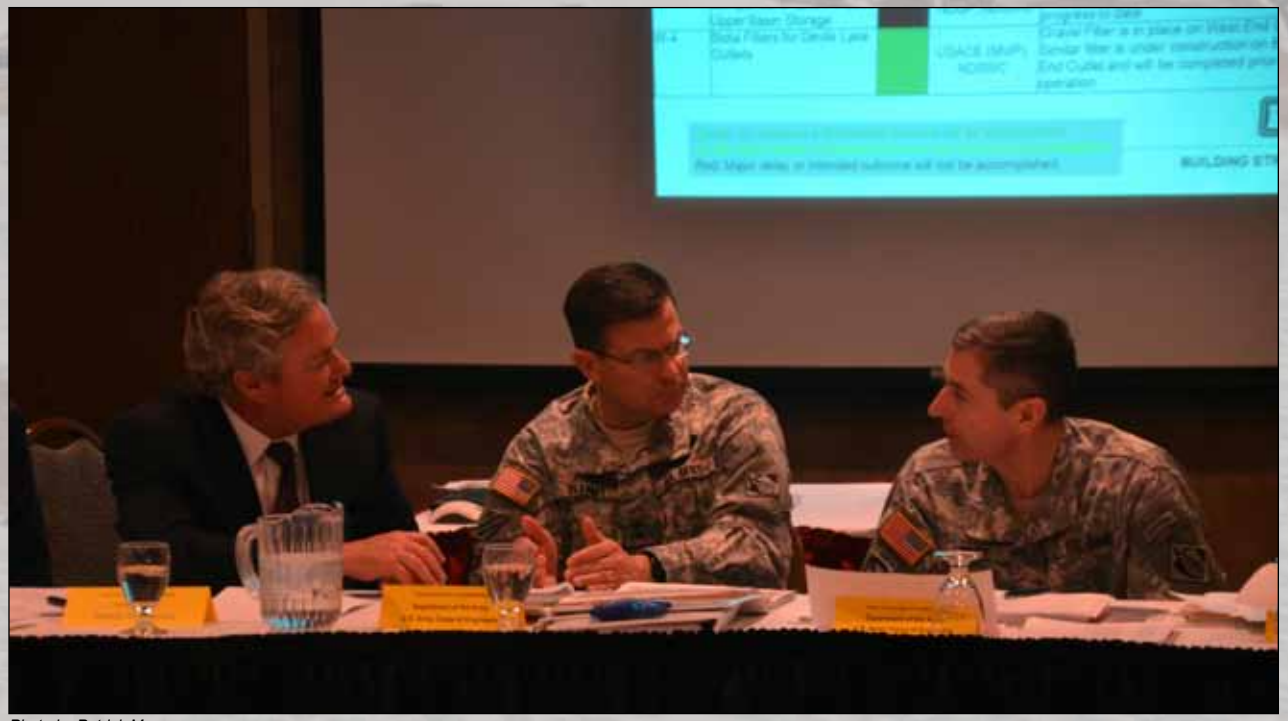


Photo by Patrick Moes

North Dakota Governor Jack Dalrymple, left; Maj. Gen. John Peabody, Mississippi Valley Division commander; and Col. Michael Price, St. Paul District commander, discuss flooding issues within the Devils Lake Basin during the Devils Lake Executive Committee meeting in Bismarck, N.D., Jan. 31. The Corps, along with other federal, state and local governments have worked together to create measures to reduce the flood risk on Devils Lake while protecting downstream communities.

While in North Dakota, Peabody, Price and other division and district senior leaders attended the Devils Lake Executive Committee meeting in Bismarck, N.D. The meetings have occurred for more than a year and include representatives from the division, district, federal, state and local governments. The original intent of the meetings was for the division to coordinate efforts within the basin, said Bill Csajko, project management.

North Dakota Governor Jack Dalrymple said he was skeptical of the meetings at first, but he was pleased to say he has since changed his mind. “Overall, I’m really impressed with what has been accomplished in the last year,” he said. “It’s been a good process, and I want to thank the Army Corps for all that you’ve done here.”

The accomplishments that happened in the past year include: the North Dakota State Water Commission building the east end outlet on Stump Lake, which is scheduled to begin operating in June; the Corps’s Tolna

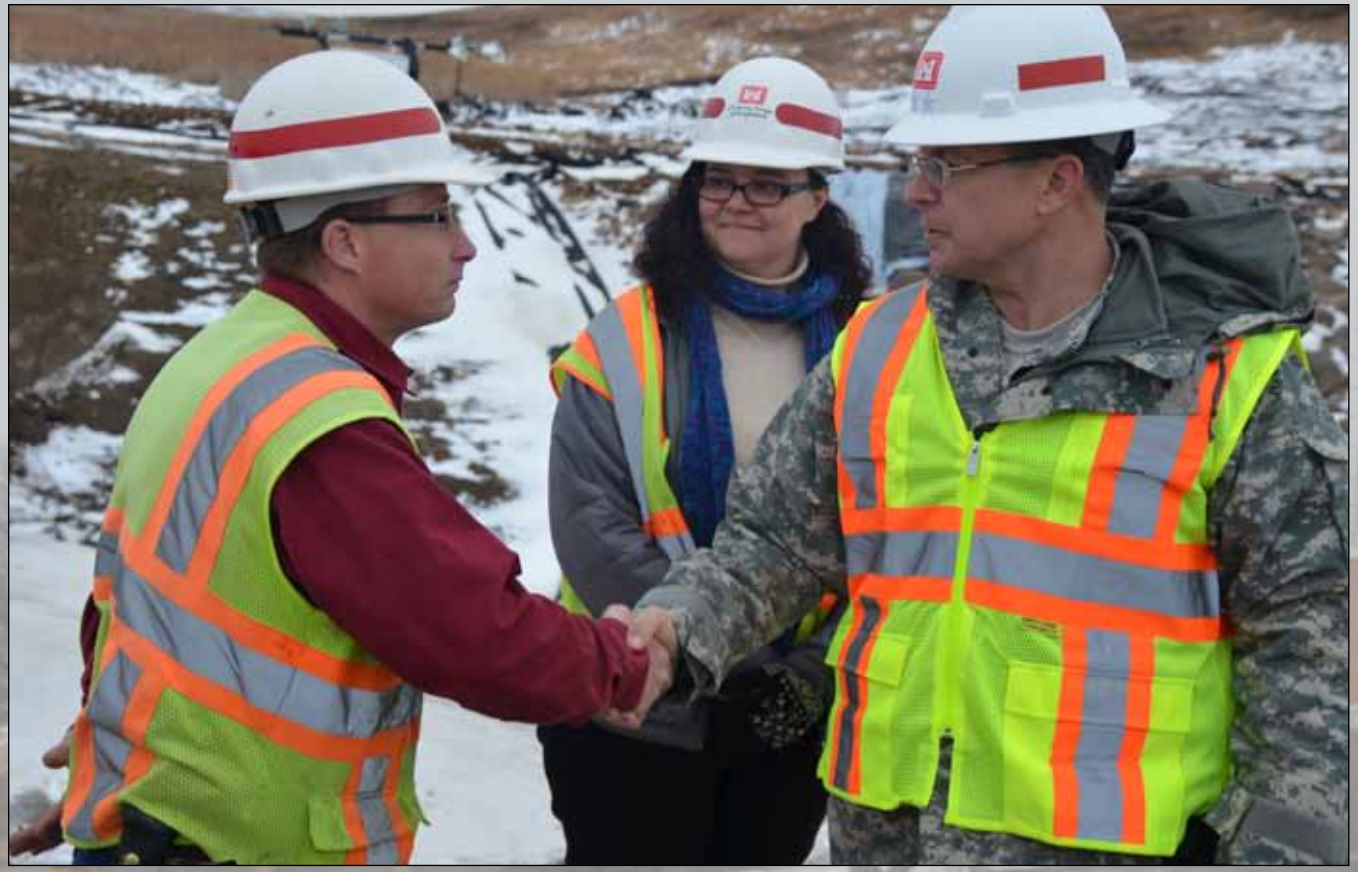


Photo by Patrick Moes

Maj. Gen. John Peabody, Mississippi Valley Division commander, right, presents Jason Johns, engineering and construction, and Violet Albright, New Orleans District project engineer, commander's coins for their efforts on the Tolna Coulee Control Structure. The project, near Tolna, N.D., is expected to be complete in early April. The district will then turn it over to the North Dakota State Water Commission, who will operate and maintain the structure.

Coulee project and Devils Lake embankment raises; and several actions in and around Minnewaukan, N.D., which consist of temporary flood barriers, a partial town relocation and a new school being built.

Price said the group can't lose the inertia that has been built. "We need to keep the momentum moving in a positive direction." He added that the spring flood outlook looks optimistic so far but cautioned everyone to remember that there were at least two months left of winter.

Commander hosts a town hall

After leaving North Dakota, Peabody flew back to the district's headquarters where he hosted a town hall Feb. 1. Speaking to more than 250 district employees, the division commander said he had a great tour of North Dakota but cautioned everyone that "there is nothing the Corps can build, that can't be overdone by Mother Nature. We have to have a certain amount of humility and realize that nature is a powerful force."

> *"We have to have a certain amount of humility and realize that nature is a powerful force."*
>
> **Maj. Gen. John Peabody, Mississippi Valley Division commander**

In addition to talking about his initial thoughts about the district's challenges, Peabody discussed his command philosophy. "Command is a team sport," he said as he reflected on his two previous division commands — Pacific Ocean Division and Great Lakes and Ohio River Division. "Everything has to be values-based."

Emphasizing the Army's values, Peabody said the Soldiers Creed and the Army-Civilians Creed should guide every employee as they create a safe work environment, filled with respect and integrity.

Finally, Peabody challenged everyone to use strategic communication to talk with stakeholders. "We must communicate in a language [stakeholders] can understand," he said. "We must talk clearly and get them engaged."

Despite winter conditions, the district continues Tolna Coulee outlet construction

Story by Patrick Moes

Amid rolling hills and a lake that continues invading communities in central North Dakota, lies a control structure here that the district is building to prevent catastrophic erosion.

The Tolna Coulee project is not a dam. It will not initiate erosion or slow it down, but the 800-foot wide structure will regulate the amount of water that would flow through the coulee if Stump Lake were to reach 1,458 feet above sea level, said Violet Albright, New Orleans District employee temporarily assigned as the project engineer. The project is currently scheduled to finish sometime in early April.

Until recently, Stump Lake and Devils Lake were completely separate bodies of water. The boundary lines from the past have since dissolved because of the continued flooding. Since 1993, the lake has risen more than 30 feet, destroying roads and inundating thousands of acres of farmland.

The lake reached record high levels last year with an elevation of 1,454.4 feet. The National Weather Service, or NWS, is currently forecasting that the lake will reach 1,453.8 feet this summer. According to the NWS, there is

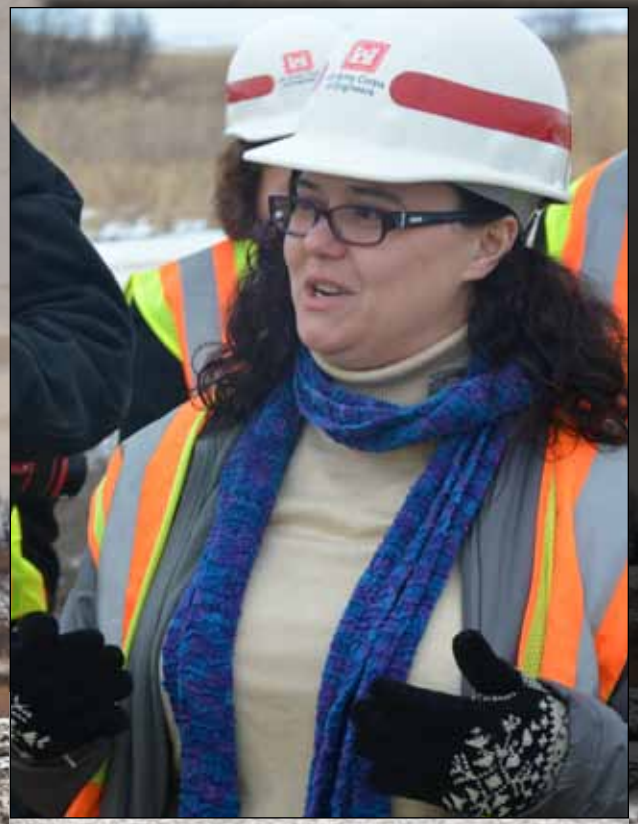


Photo by Patrick Moes

Violet Albright, Tolna Coulee project engineer and New Orleans District employee, discusses the construction process during a recent site visit. The project is scheduled to be done in early April.

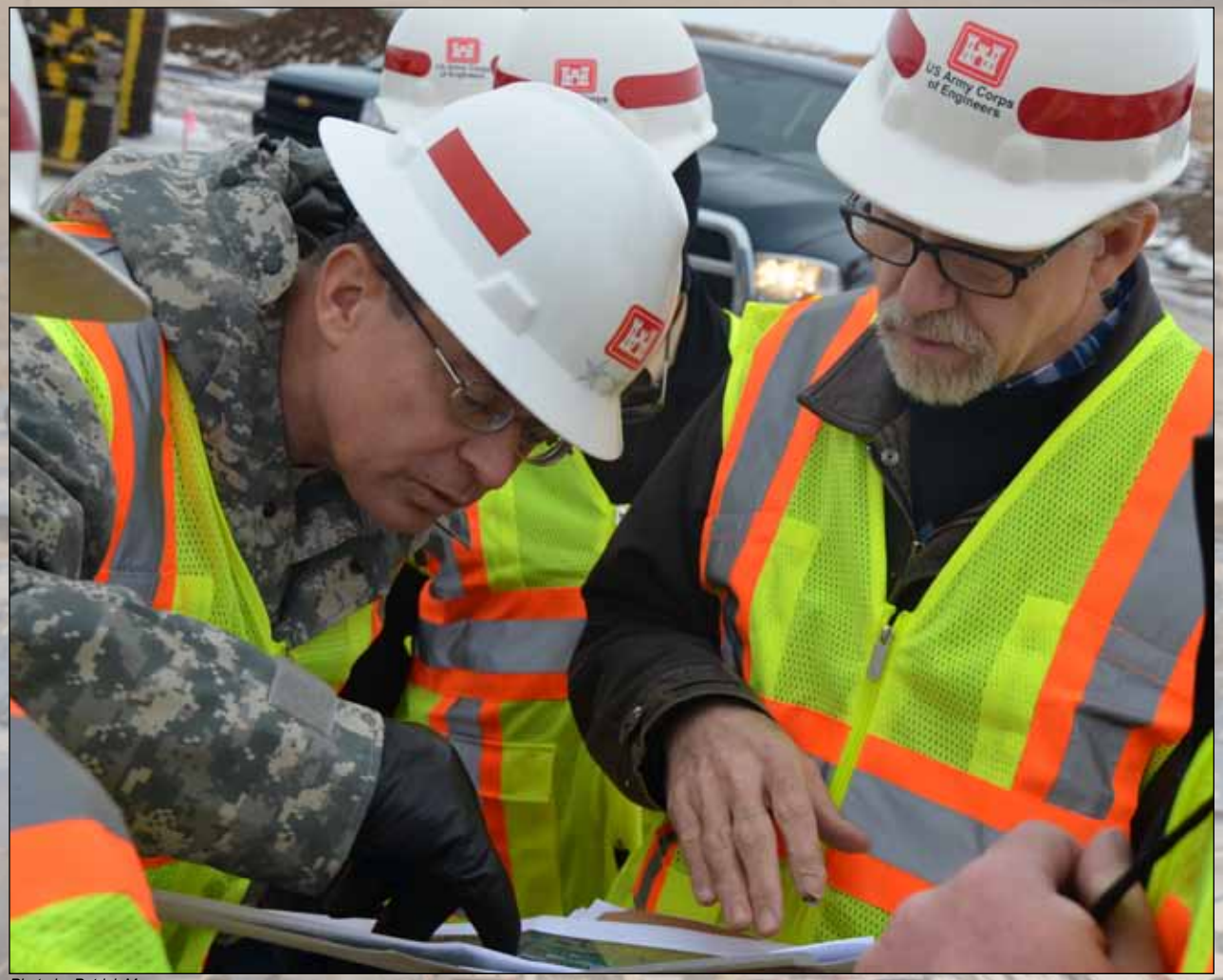


Photo by Patrick Moes

Maj. Gen. John Peabody, Mississippi Valley Division commander, left, and Bill Csajko, project management, discuss the ongoing construction efforts at Tolna Coulee, near Tolna, N.D. The Corps plans to complete the construction within the next six weeks.

around a 20 percent chance that the lake will reach last year's record. The lake fluctuates due to snow, rain and evaporation.

Bill Csajko, project management, said the current lake elevation of approximately 1,453 feet, is merely five feet from naturally overtopping the coulee. If the lake levels continue to rise and the water overtops the natural outlet elevation, the subsequent erosion could tragically impact downstream communities along the Sheyenne River to include Valley City, N.D., and Lisbon, N.D.

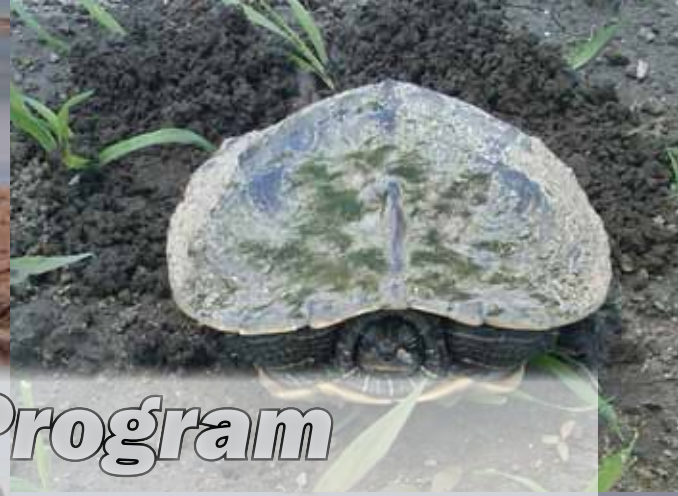
While the project is not favored by every citizen within the area, Csajko said he understands the concerns from both residents near the lake that want the water elevations dropped immediately and downstream groups that are concerned with increased water within the river. Despite resistance within the two groups, he said the control structure is needed. "It's critical in the fact that if we did have an event that caused the erosion within the coulee, the structure would save downstream communities from complete disaster," he said.

Winter construction in North Dakota

Working outdoors in North Dakota during the winter can be difficult. Albright said the weather has been the biggest challenge not because of the cold and snow, rather the warm conditions are melting the water. She said active springs within the construction site have filled the area with water when temperatures reach at least 32 degrees Fahrenheit. The conditions have "added an aspect of fun," she said.

Despite the weather challenges of warm days and occasional days where the temperature drops to negative 15 degrees, the workers continues moving toward the deadline. Jason Johns, engineering and construction, said, "We've done really well considering the work and weather factors."

Johns, who has been the quality assurance representative on the project since the first day of construction, spends his days with the contractors ensuring the project is built to the specifications. "It's a necessary evil," he said. "But it's a part of construction during the winter in North Dakota." He added that it's important to physically observe the work being done.



Environmental Management Program reaches 25 years

Story by Vanessa Hamer

The Pool 8 Islands construction project on the Upper Mississippi River near Brownsville, Minn., is scheduled for completion this summer and the first stage of construction at Capoli Slough, downstream of Lansing, Iowa, is scheduled to start this spring. Both projects are part of the Upper Mississippi River Restoration-Environmental Management Program, known as the EMP.

These projects illustrate the success of the program during the past 25 years and envision the continued success for the future, said Don Powell, retired EMP program manager.

The EMP was created when the Water Resources Development Act of 1986 was passed by Congress. More than 54 projects have been completed and 15 more are in the design phase or under construction across the region. The EMP has benefitted approximately 100,000 acres of aquatic and floodplain habitat. These projects span across five states: Minnesota, Iowa, Wisconsin, Missouri and Illinois. They also includes the Corps' St. Paul, Rock Island and St. Louis districts in addition to the many partners such as the U.S. Fish and Wildlife, the U.S. Geological Survey, five state natural resource agencies, non-governmental organizations and the public.

"The EMP is unique because it was the first program in the nation to combine ecosystem restoration with scientific monitoring and research efforts on a large river system," said Tom Novak, project management and district EMP manager. The habitat rehabilitation and enhancement project component focuses on restoring or creating natural aquatic and floodplain habitat through techniques such as shoreline protection, island building, flow modifications, and backwater dredging. The long term resource monitoring component focuses on data gathering, analysis and information dissemination to enhance understanding of river system functions and provide tools for river management actions and policy decisions. Through data already collected, the EMP monitoring database is one of the most extensive and comprehensive data sets of any large river system in the world, said Powell. The EMP infrastructure has provided a model used by others in the United States and around the world.

During the past 25 years, the district has completed more than 25 EMP projects, resulting in approximately 40,000 acres of aquatic and floodplain habitat, said Novak.

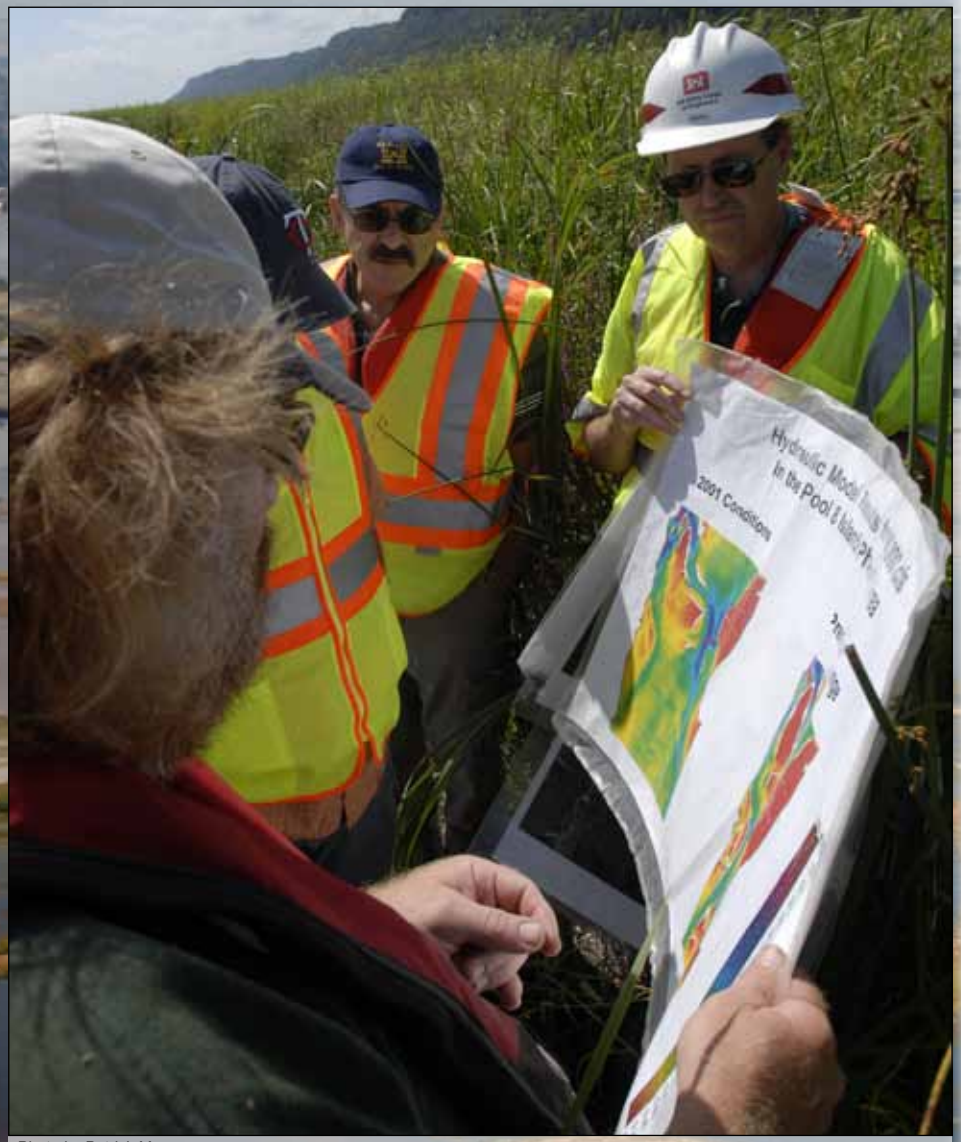


Photo by Patrick Moes

From Left, Jeff Janvrin, Wisconsin Department of Natural Resources biologist, Chris Erickson, project management, Jeff DeZellar, project management, and Don Powell, retired, discuss the Pool 8 Islands project during a summer tour in 2010.

Evolution of a new approach on how engineers design

A temporary end to design and construction activities in Pool 8 will occur this summer as the Corps focuses on other areas of the Upper Mississippi River, including Pool 9, said Novak. The success of the Pool 8 project and other EMP projects have paved the way for new designs and construction techniques.

Hydraulics

The Pool 8 Islands project created a unique challenge for St. Paul District engineers, said Jon Hendrickson, engineering and construction. One of the first EMP habitat projects for the district, partners had to work together to design a specific project that had never been attempted before. “We were told to fix a problem but were not given any structure on how to go about fixing it,” said Hendrickson, who has been working on the islands since the beginning of planning. “But, people knew what we were doing,” said Hendrickson, “and this encouraged us to do better. We were always getting valuable input from other agencies and the public.”

From a hydraulics standpoint, he said, it was clear to all the partners that there was a major problem with water movement. The latest technology and models were used in project design to depict how water moved through the main channel, backwaters and floodplains and how the flows and existing structures would be impacted through island construction. Information from other large ecosystems has also contributed to project designs.

It was a form of “adaptive engineering” that the district was doing, said Hendrickson. We started with historical river conditions that showed where previous island chains had existed. Through these historical records, logical locations for island restoration and creation were able to be determined.

Construction

The unique challenges did not end with the design phase but continued as construction began. The first stage of the Pool 8 Islands Project Phase III began in 2006. “Overall, it was enjoyable from a construction standpoint,” said Scott Baker, engineering and construction. “With separate phases of construction you got to see wildlife come to

finished areas and watch the habitat change and respond to the newly constructed islands," he said.

Baker said he is looking forward to construction work begining this spring. He has already prepared the contract specifications and is now in the process of reviewing the plans for constructing the Capoli Slough habitat project. "Not everyone can do the construction work," he said. "It is very complex because of all the restrictions and exclusion zones that not only protect existing resources but also shorten the normal construction season by months. Surveys need to be very accurate so money is not spent where it is not needed." Previous contractors have handled the constraints well, and it shows, he said. The last two phases of the Pool 8 construction were completed under budget by contractors and are already showing positive habitat response and are getting positive reviews from partnering agencies and the public, said Baker.

It is a "continual lessons learned" approach that needs to be taken, said Baker. The collection of these lessons through trial and error has led to an evolution in engineering techniques during the past 25 years.

Novak said the lessons were documented with the preperation of the 2006 Environmental Design Handbook. Since then, there has been even more information gained and an updated handbook is expected to be prepared by the end of the year, which includes how engineering techniques and features contribute to biological goals, he said.

The vegetation guys

In the last two years, 10,000 tree seedlings have been planted on the Pool 8 islands and 5,000 more are planned for this spring, said Randy Urich, natural resources. The plantings were completed through a combined effort of the district, the USFWS and volunteers.

Urich said new approaches were taken in developing the planting plan and have resulted in a positive response. The plan experimented with the multiple elevations present on each island. Diverse trees that consisted of different species with different flood capacities were used.

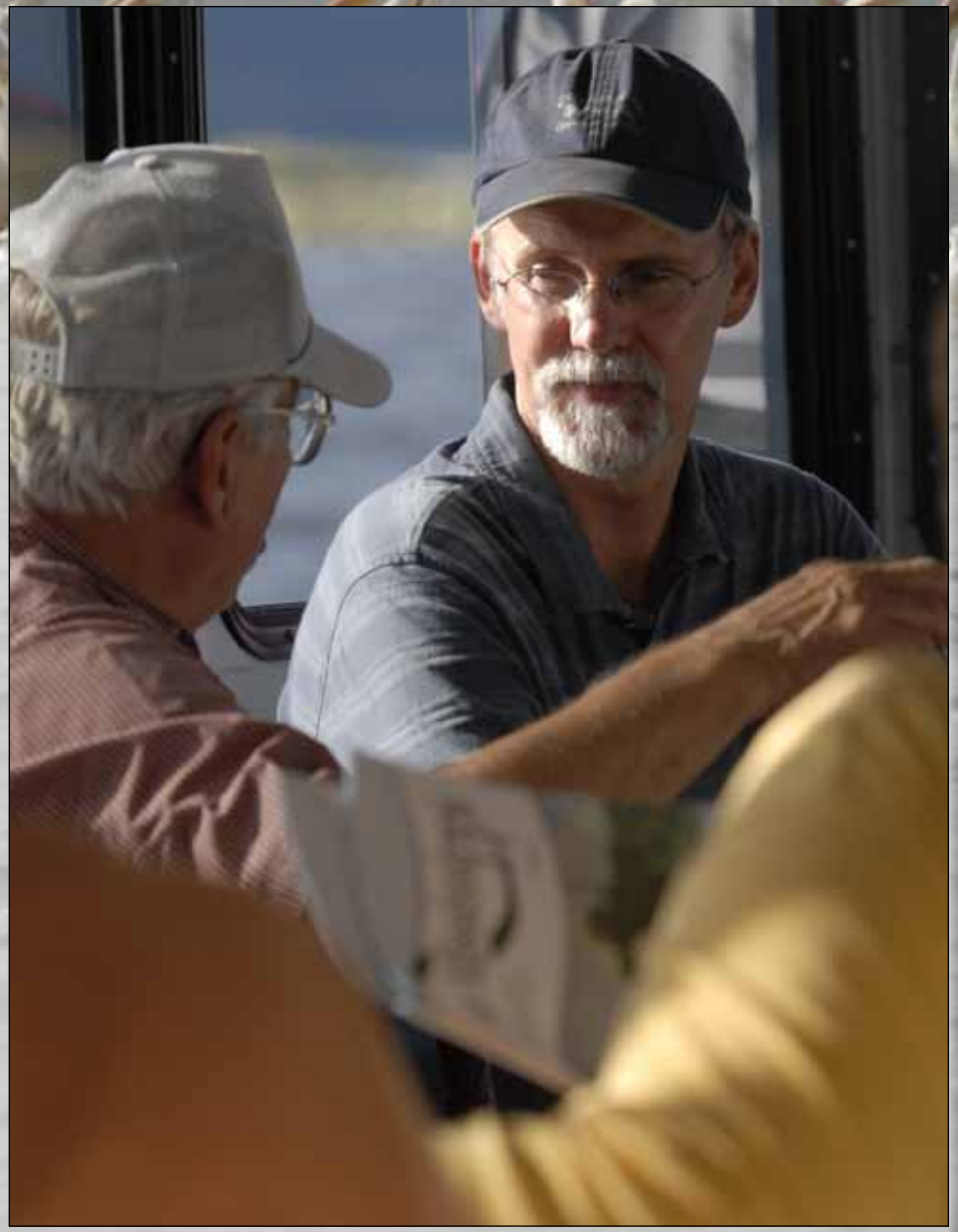


Photo by Patrick Moes

Scott Baker, engineering and construction, center, talks to community members about the Pool 8 Islands project during a public boat tour in August 2010. The Corps and its federal, state and local partners will temporary complete habitat restoration in Pool 8 this summer and begin working on projects in Pool 9.

For example, red oak grows best in areas where there is less flooding, while black willow grows best in areas where there is yearly flooding. The end goal was to create a “significant bottomland hardwood forest that would, in combination with engineering techniques, stabilize the island,” said Urich. The plan also provides food and shelter to wildlife.

The partners

From the beginning, an interagency planning team was formed to plan and design EMP projects. This team included people from several agencies with knowledge of the river. Each person had different goals, experiences and philosophies, said Jim Nissen, Upper Mississippi River National Wildlife and Fish Refuge, or UMRRNW, district manager in La Crosse, Wis.

The project required everyone to work together to get all the goals met, he said, which often meant making things more complicated as the construction increased in size and scope.

For example, Nissen said, The recent Pool 8 construction included four different construction areas spread across 3,000 acres.

Tim Yager, UMRRNW deputy refuge manager, said, there needed to be a team approach, and the partners frequently did not agree; but if the goal was kept in sight, the disagreements often made a better project in the end. That goal includes having the USFWS operate and maintain the projects that have been built on their property.

The public

The EMP would not have had the success it has had without public involvement, said Nissen. In fact, the public was instrumental in getting an environmental management program started by bringing the issue of habitat loss to everyone’s attention and then pushing for action. As a result, the public has been involved in every district from the start.

For the pool 8 project, the public was engaged ifrom the beginning, said Powell. The most recognizable public support is through the physical use of the islands and people providing positive comments about improved fishing and improved wildlife use, said Novak. The EMP is a benefit to everyone, habitat and people, and this is being recognized by everyone. “You don’t really think about it when you start out,” said Hendrickson, but at a Brownsville, Minn., public meeting for the Pool 8 Islands, “the positive impact was fully recognized when people gave a standing ovation for the successful work that was done.” For Hendrickson, “[The program] is an amazing experience.”

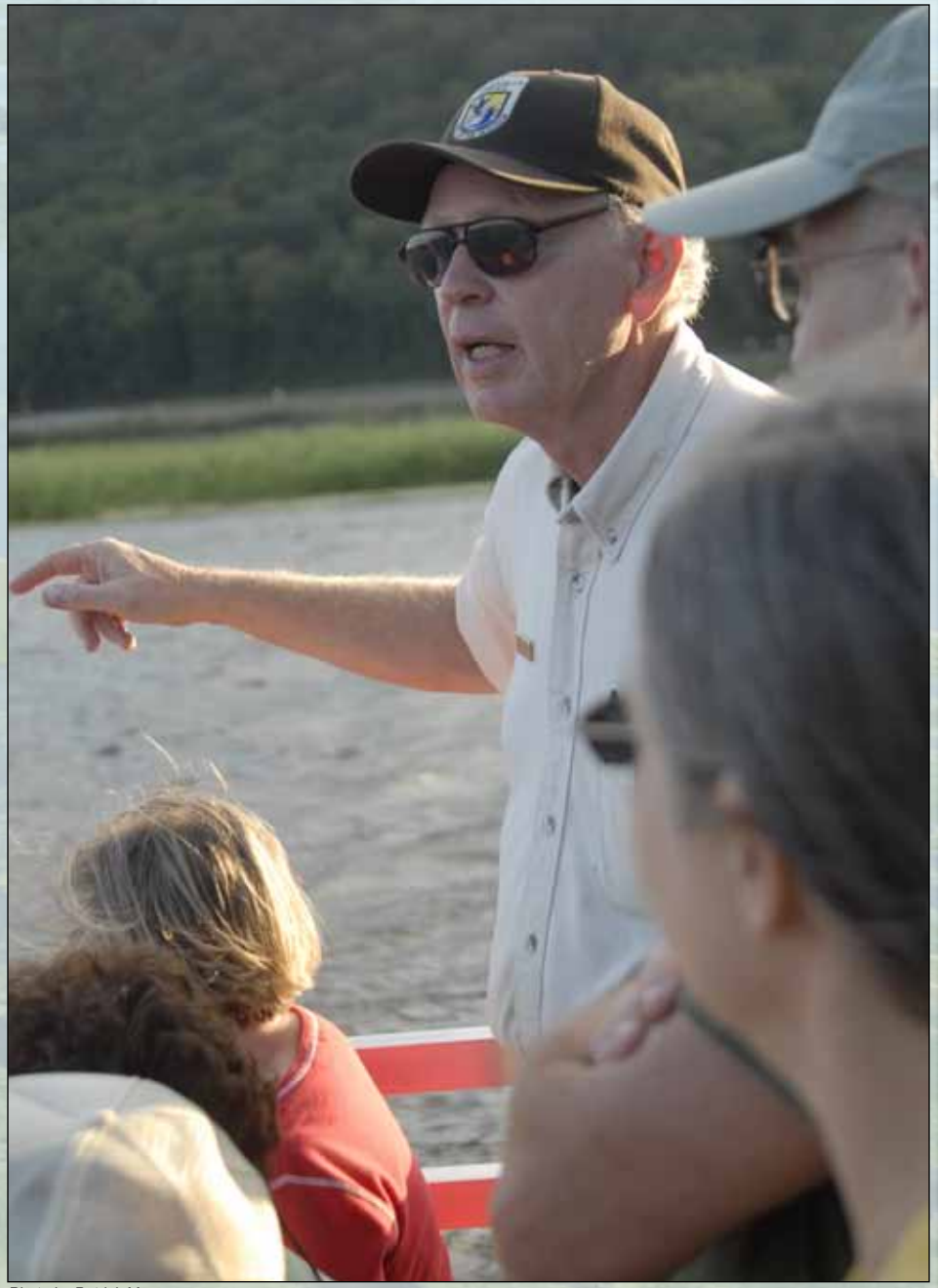


Photo by Patrick Moes

Jim Nissen, Upper Mississippi River National Wildlife and Fish Refuge district manager in La Crosse, Wis., center, talks to community members about the Pool 8 Islands project during a public boat tour in August 2010.

Gull Lake park rangers use teamwork to prepare for summer

Story by Patrick Moes

The Gull Lake Recreation Area, just north of Brainerd, Minn., has served as a district flood control project for the past 100 years.

While the dam regulates the water levels on the chain of lakes, the park rangers that oversee the dam's operations and maintenance take care of more than just the gate adjustments. "We are responsible for all of the facilities on the grounds to include the Brainerd Regulatory Office," said Mary Kay Larson, operations and Gull Lake site manager. From developing and maintaining hiking trails, camp sites other area facilities to managing people and resources, Larson and Brian Turner, operations and park ranger, work as a team to get the job done.

"Brian and I make a good team because we have the same customer focused mentality," said Larson.

Turner said the mindset of doing whatever needs to be done has him constantly learning. He said the job requires him to know a little bit about everything, but the one area that he needed to learn on the job was maintenance. In some of the Corps' bigger parks, rangers specialize in specific programs; recreation, natural resources, interpretation and visitor assistance. The Gull Lake rangers don't have the staff to specialize so they need to properly balance all the program areas to ensure what is best for the Corps, the natural resources and the public.

Larson said the challenging part is trying to learn enough about all of the tasks because, "If someone is gone, we have to fill in to do it all."

The work also involves working very closely with the district's water control section. Brian Johnson, headwaters water regulator in engineering and construction, said, Gull Lake is regulated within a 3.6-inch level during the summer, or an elevation of 1193.85 feet to 1194.15.

The tight regulations keep the lake elevation constant for much of the summer, but Larson said the shallow shoreline slopes make it appear that the water level is fluctuating more than it actually is. The staff works hard to try and explain the water management process to everyone that asks. "We invite them in," she said. "We show them how the readings are taken and explain the process on how we regulate to achieve the desired results." The Gull Lake staff tries to inform the local citizens through the lake association newsletter, too.

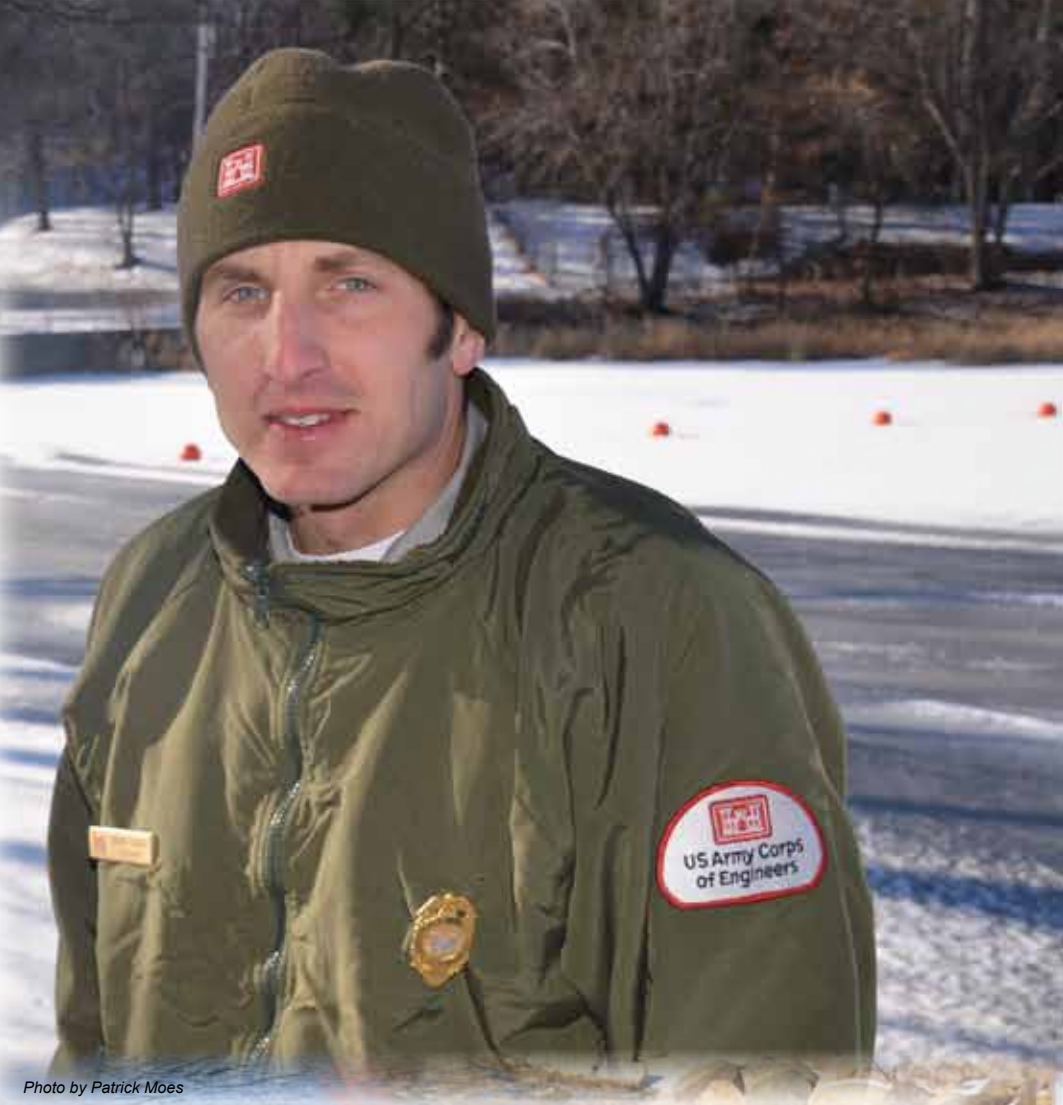


Photo by Patrick Moes

Brian Turner, operations and Gull Lake Recreation Area park ranger, is one of two full-time rangers that work throughout the winter to prepare for the summer recreation season.

Despite the rangers' willingness to explain the water management, they said some lake and river residents still get frustrated from time to time. To diffuse these situations, Larson said, she sometimes uses tactful humor, and it tends to work well. She said she remembers her old boss always saying that "you can't have a bad day with the public."

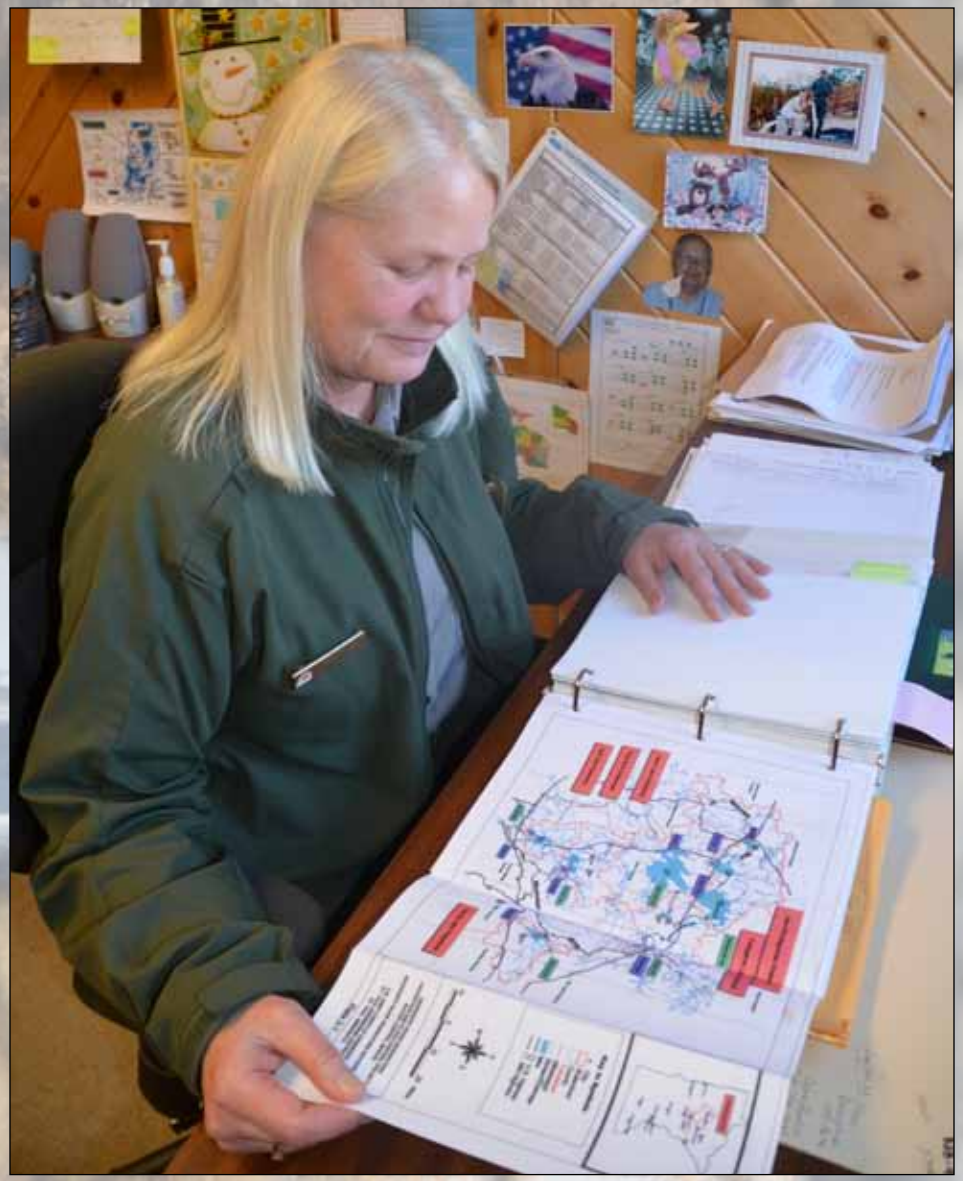


Photo by Patrick Moes

Mary Kay Larson, operations and Gull Lake Recreation Area site manager, reviews the Gull Lake dam operation book.

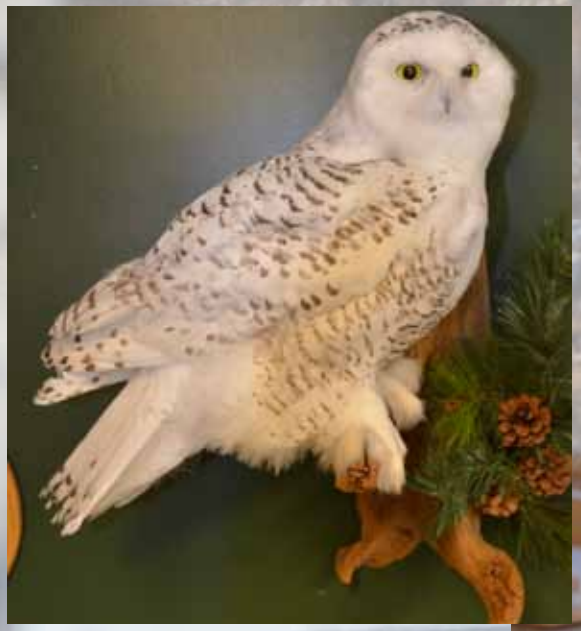
Bad days aside, the Gull Lake Recreation Area is enjoyed by a large number of visitors annually for just two full time park rangers to manage. Larson said she relies heavily on the college intern program and volunteers. “If we didn’t have them,” she said, “we couldn’t survive.” While the site has a contractor that works half-days cleaning, Larson said the park rangers have developed a lot of ideas to have the campers pitch in. These ideas include seasonal clean up events various and interpretive lessons. “We’ve actually empowered the campers to clean up their own trash,” said Larson.

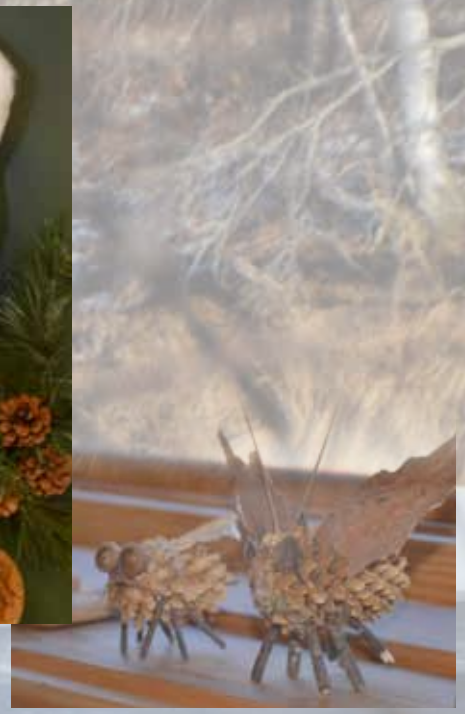
Turner said he’s seen a growing national trend toward having outdoor enthusiasts contribute to keeping the environment clean. “It’s actually worked really well for us,” he added.

While the rangers continue to assist visitors to get the most out of their recreational experience, Turner said he enjoys dealing with the public. “I like the variety,” he added. “Every day is something new and you are around people that are recreating, you’re helping people.”

Larson agreed. She said she doesn’t get to spend as much time with the campers as she used to because of her managerial duties, but she said she still enjoys working with people, even if it’s through different avenues such as partnerships and community outreach.

For more information about the Gull Lake Recreation Area or to make camping reservations visit www.recreation.gov.





News & Notes

Editor's Note

Do you have news you want to share with the district? Send your announcements of births, weddings, graduations, etc., to *Crosscurrents.* cemvp-pa@usace.army.mil.

Newcomers

Jamie Engelbretson, human resources, district office
Shannon Gross, accountant, district office
Megan Jones, administrative assistant, district office
Tammy Kime, administrative assistant, district office

Retirements

Neil Helming, civil engineer, district office
Brenda Keiser, accountant, district office

Crosscurrents flashback (originally published February 1982)

On-line is available

On-line or interactive searching is a method of acquiring specifically selected information from several different sources.

A search is carried out on a terminal located in the St. Paul District Technical Library, which is connected to the DIALOG Information Service in Palo Alto, Calif. DIALOG has been serving users since 1972 and now offers more than 130 data bases containing more than 50,000,000 records.

Usually a data base is confined to a particular discipline, such as engineering, environment, water resources or management. Within these broad fields, a search can be modified to focus on very specific interests.

Search results can be printed at the terminal, doing in minutes what might take several hours to do manually.

Beginning in February, individuals are invited to use the terminal for their own searches. Learning to search is not difficult. The basics can be self-taught through the manuals available in the library.

Most on-line searches can be completed in 10 to 15 minutes and charges are based on the actual time on-line.

Congratulations

Nate Osmundson, Lock and Dam 7, La Crescent, Minn., was selected as a the head operator.

Crosscurrents magazine earned 2nd place honors in the 2011 Corps of Engineers Herbert A. Kassner Journalism Contest.

Patrick Moes, public affairs, earned 2nd place in photojournalism

Tammy Wick, project management, earned 3rd place for photojournalism by a stringer.

District care packages arrive in Afghanistan

Thank you so very much for the Valentine's Day package. It was a wonderful surprise today. I appreciate you – and our home district – for thinking of me. Knowing you and others support me here is a reward like you cannot imagine.

- JL Summerlin, engineering and construction

District recognized for charitable contributions

The district's Northern Lights Combined Federal Campaign was recognized Feb. 16, for increasing the total amount of contributions by more than 20 percent. Capt. Chris Ericson, operations, led the district's CFC program this year.