

# Crosscurrents

Serving the St. Paul District  
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US Army Corps  
of Engineers®  
St. Paul District

St. Paul District responds to  
summer flooding  
Pages 4-5



(left to right),  
 Greg Wachman, geotechnical engineer; Dan Flittie, structural engineer; Raylene Hylland, Winona resident engineer; and Tom Schmit, Eastern Area Office area engineer, review the design of the Rapidan Dam, near Mankato, Minnesota, June 24, following a breach around the dam. USACE St. Paul District photo by Patrick Moes



*Crosscurrents* is an unofficial publication authorized under the provisions of AR 360-1. It is published quarterly for U.S. Army Corps of Engineers, St. Paul District. Views and opinions expressed are not necessarily those of the Department of the Army or the U.S. Army Corps of Engineers.

Articles and photography submissions are welcome. Submissions may be emailed. Submissions should be in Microsoft Word format. Photos should be at least 5 in. x 7 in. at 300 dpi.

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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## Comments From The Top: A message from Col. Eric Swenson

Teammates,

It's great to be back in the district office, and I want to extend a huge thank you to Karl Jansen, deputy district engineer for programs and project management; Lt. Col. Rob Wilkins, former deputy commander who moved on to a new command in May; and Ben Rhoda, who temporarily served as deputy commander, for holding down the district while I was deployed to Maui. Ben did a fantastic job filling an important position, while we transitioned from Col. Wilkins to our new deputy commander, Lt. Col. Josh Rud. I would like to welcome Col. Rud to the St. Paul District. Col. Rud comes to us from Fort Campbell, Kentucky, and has previously served in the Corps' Omaha District office. He is a Minnesota native and pumped about being back home.

As you may know, we experienced high water in June and the start of July. Thank you to all our teammates that responded to the high water and provided technical assistance to Minnesota's Blue Earth County on Rapidan Dam. Keep reading to learn more.

Unfortunately, I missed out on the summer awards ceremony and picnic, but I hear we had an awesome turnout, and we recognized a number of our remarkable teammates. You can check out some of the photos and the length of service awards in this issue.

We continue to highlight our efforts in providing expertise and technical assistance to the Sacramento District for projects in California's Central Valley. These projects aim to improve an aging levee system that protects the area from the Sacramento,

American, and San Joaquin rivers. Ben Nelson, project manager, and Dan Mielke, technical lead, provide us an update on the major projects the St. Paul District is supporting.

Collaboration is key when it comes to safety and that's what navigation officials and the Engineer Research and Development Center experts are doing to solve a life-safety issue with an outdraft at Lock and Dam 7. An outdraft means a "pulling" toward a downstream dam. Learn more about how the uniqueness of the lock and dam created an opportunity for some creative brainstorming and partnering on this effort.

As we commence Antiterrorism Month in August, I want to emphasize the critical importance of our efforts in maintaining security and safeguarding our community. This month serves as a reminder of the ever-present threats we face, and the resilience required to counter them effectively.

Each one of you plays a vital role in our mission. Your vigilance, dedication to training, and adherence to protocols are instrumental in our ability to preempt and neutralize potential threats.

Let us approach this month with renewed commitment and focus. Through proactive measures and continuous preparedness, we can strengthen our defenses. I urge you to remain vigilant, stay informed and prioritize safety in all operations.

As always, I urge you to remain safe both on and off duty. Remember, safety is proactive. It requires awareness of potential hazards



and adherence to established procedures. Never hesitate to speak up if you observe unsafe practices or conditions. Our collective commitment to safety ensures that we can execute our tasks effectively and return home safely to our loved ones.

Respectfully,  
Col. Eric Swenson

## St. Paul District responds to summer flooding

Story by Elizabeth Stoeckmann

As water levels continued to rise the last week of June, the St. Paul District activated its Emergency Operations Center to assist the state of Minnesota and surrounding communities with the summer flood risk.

### Community support

Nearly 50 district employees were activated to assist in the planning, coordination, staging and delivery sites, and technical oversight of sandbag operations at locations from Minnesota to Wisconsin.

The EOC provided 175,000 sandbags, two 4-inch pumps and technical assistance to communities impacted by the flooding while supporting Blue Earth County officials responding to the Rapidan Dam breach.

### Rapidan Dam support

As flows continued to rise on the Minnesota River, water broke through the west embankment of Rapidan Dam and took out one side of the small hydro plant. Rapidan Dam is located 12 miles upstream of Mankato, Minnesota, on the Blue Earth River, a tributary of the Minnesota River.

The non-federal dam was built in early 1910s and through the years developed sedimentation. The Corps performed repairs in the early 2000s.

To assist county and state officials in their decision making, geotechnical engineers

inspected site conditions and hydraulic engineers performed inundation modeling to assess the impacts of a partial and/or full breach on downstream entities.

“Hydraulic engineers used tools available for Blue Earth River and Rapidan Dam such that we can begin to understand the implications/risks. Blue Earth River flows to the Minnesota River with confluence at the upstream end of Mankato,” said Heather Henneman, hydrologic engineering section chief.

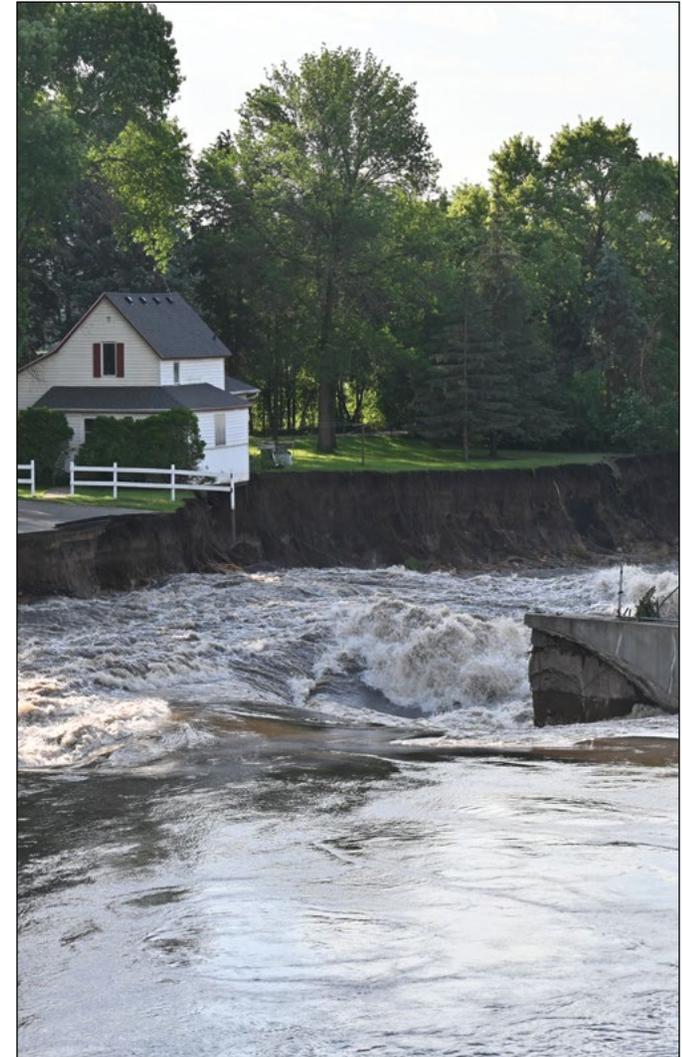
District engineers recommended Mankato levee closures be installed, reassuring the community downstream should the Rapidan Dam experience total failure while the Minnesota River was cresting.

### Lock and Dam closures

The Mississippi River was at peak river levels driven by high precipitation that resulted in major flooding on the Minnesota River basin, with moderate contributions from the other key tributaries.

As a result, Locks and Dams 2 and 3 experienced the highest peaks, with Lock and Dam 2 surpassing peak elevations experienced last spring by about a foot. Locks and dams 1 and 3 closed to commercial navigation from June 29 through July 2.

**Story continued on Page 5**



Rapidan dam near Mankato, Minnesota, June 24. USACE St. Paul District photo by Patrick Moes

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“Lock and Dam 4 and downstream river conditions remain elevated based on current National Weather Service forecasts,” said Dan Fasching, hydraulic engineer. “During this period the river is susceptible to any additional precipitation which may change the flood status rapidly.”

## **Strong partnerships**

“Over the years of navigating high water, our steadfast commitment to building and nurturing relationships with local tribes and state agencies has proven invaluable,” said Jim Rand, chief of the readiness operations center. “Moving forward, we remain dedicated to sustaining these relationships, fostering mutual trust, and continuing to collaborate closely with all stakeholders to ensure a resilient and prosperous future for everyone involved.”

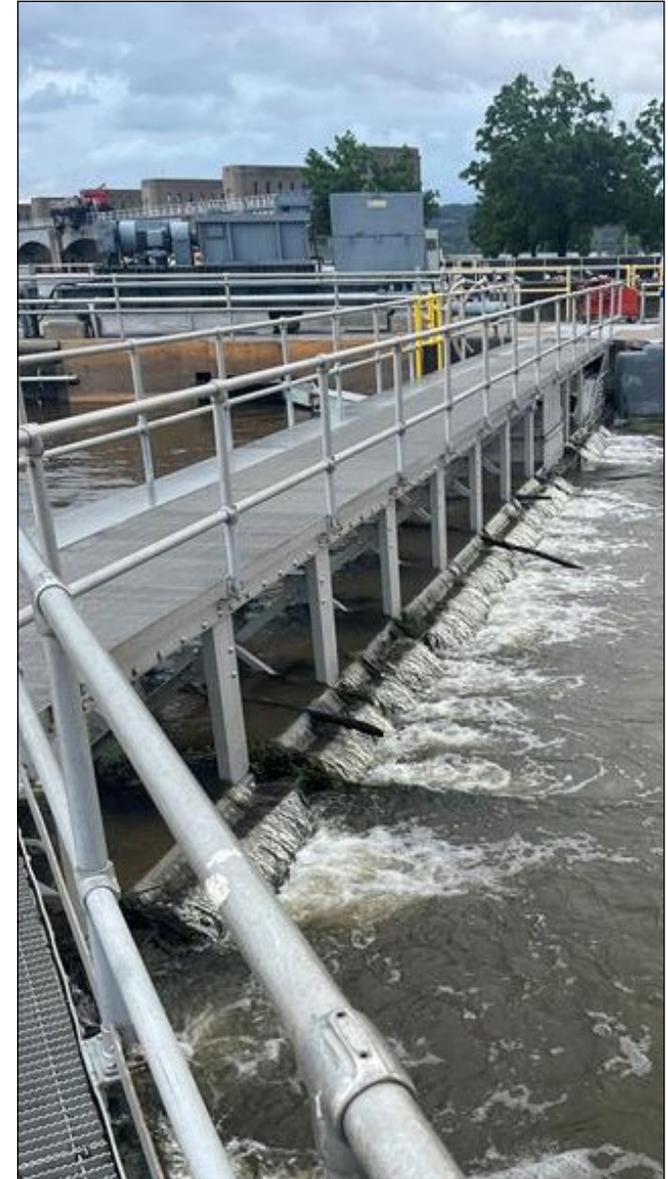


*The flooded storage area at Lock and Dam 2, near Hastings, Minnesota, July 2. USACE St. Paul District courtesy photo*



*Lock and Dam 3, near Red Wing, Minnesota, at an average river level, March 21, 2022. USACE St. Paul District photo by Melanie Peterson*

*High water at Lock and Dam 3, near Red Wing, Minnesota, July 2. USACE St. Paul District courtesy photo*



## Deputy district counsel receives national Army Corps of Engineers award

Story by Dave Elmstrom

The U.S. Army Corps of Engineers Headquarters selected Alex Webb, an attorney with the St. Paul District, as its 2024 recipient of the E. Manning Seltzer Award for his work on the Upper Mississippi River Dredged Material Management Program.

The E. Manning Seltzer Award is a national award named after the chief legal advisor to the Chief of Engineers and General Counsel of the U.S. Army Corps of Engineers from 1956 to 1977. The award recognizes an attorney who has made one or more special contributions to the Corps' legal services mission through the development of a legal theory, a legal management innovation or practice or outstanding performance in solving a legal or management problem.

Webb was honored for helping solve a dredged material management issue on the Upper Mississippi River. His work resulted in a Section 217(d) agreement between the city of Wabasha, Minnesota, and the Corps of Engineers, the first of its kind for inland waters within the United States. The agreement allowed the Corps of Engineers to partner with the city of Wabasha to help manage the river sand removed from the 9-foot navigation channel within the greater Wabasha area.

"Alex demonstrates on a daily basis that he is a phenomenal attorney," said John Carrell, district counsel for the St. Paul District and Webb's supervisor. "His innovative thinking and identification of a legal authority for the Corps to partner with the city of Wabasha to remove sand from the Mississippi River successfully helped resolve a complex situation for the district and will pay dividends for many years in the future. This is a very well-deserved award for Alex, and I could not be any prouder of his exceptional work on this project."

Webb is the deputy district counsel and has been with the St. Paul District since 2014. In addition to working in the St. Paul District, he has successfully completed temporary details with the Seattle District Office of Counsel and with the Legislative, Fiscal and General Law practice group in the Corps of Engineers' Office of the Chief Counsel. Webb is a member of the Illinois Bar and has received numerous awards during his federal career, including the Corps' 2018 Joseph W. Kimbel award for highest potential for legal achievement. Webb holds a bachelor's degree in business administration from Saint Louis University and a law degree from Vanderbilt Law School.



Alex Webb, deputy district counsel and recipient of the 2024 E. Manning Seltzer award. USACE St. Paul District photo by Emily Chavolla

## District biologist earns national Corps of Engineers award

*Story by Dave Elmstrom*

The U.S. Army Corps of Engineers Headquarters in Washington, D.C., selected Mark Cornish as the recipient of its 2023 Civil Works Planning Excellence Award for his work on the Lock and Dam 22 Fish Passage project.

Cornish works for the St. Paul District as a senior biologist and technical specialist, but sits in the Rock Island District. His award involved his contribution and leadership to develop the first large-scale fish passage structure on the navigable portion of the Upper Mississippi River. Cornish and the project team developed and started executing a complex and critical monitoring and adaptive management plan at the site.

The Lock and Dam 22 Fish Passage project, located near Saverton, Missouri, will create a nature-like fishway that could pass more than 160 different species of fish. Because it is the first fishway on the Mississippi, scientific monitoring has been essential to better understand fish behavior in large rivers and capture lessons learned that will improve future projects.

“Mark’s technical leadership on teams leads to water resources decisions that

are innovative, environmentally sound and fully collaborated with other agencies and partners,” said Terry Birkenstock, chief of regional planning and environment division north, and Cornish’s supervisor. “He embodies what planning excellence looks like with his ability to bring partners and stakeholders together towards a common vision and drive projects forward with a trust and credibility earned by not only his technical excellence but also his past actions.”

Cornish earned a bachelor’s of science in fisheries and wildlife biology from Iowa State University and a master’s of science in biology from Western Illinois University. He began his career with the Iowa Department of Natural Resources working as an aquaculturist and field technician at the Fairport Fish Hatchery. He moved to the Corps of Engineers in 1998, where he has worked as a biologist ever since. He has worked on numerous water resources project teams and has authored environmental compliance documents, journal articles and policy in support of the navigation, ecosystem restoration and environmental stewardship programs on the Mississippi River and Illinois Waterway.



*Mark Cornish, senior biologist, technical specialist and the recipient of the 2023 Civil Works Planning Excellence Award. USACE St. Paul District courtesy photo*

## Hendrickson inducted into the St. Paul District Hall of Fame

*Story by Melanie Peterson*

Jon Hendrickson was recently inducted into the St. Paul District Hall of Fame. Hendrickson served the Corps of Engineers for 36 years as a senior hydraulic engineer, advancing to the role of a regional technical specialist for ecosystem and water quality for the Mississippi Valley Division.

His early work with the district's Environmental Management Program was the proving ground for many of the river engineering technical solutions and construction methods that is termed today as "Engineering with Nature."

During his career, Hendrickson was generous in sharing his knowledge of river engineering and ecosystem restoration, mentoring river professionals throughout the division and nationally through work groups dedicated to advancing ecological river design and fostering strong relationships both internally and with external partners, said Kari Hauck, chief of engineering and construction. Hendrickson provided insight and guidance on nearly every habitat restoration project undertaken by the St. Paul District in the last 30 years, leaving an indelible imprint on the Mississippi and Minnesota rivers programs.

"During his 36-year career, Jon's calm demeanor, focus on science, and respect for the operational needs of study partners has helped him deliver sustainable solutions and protection for natural resources," said

Hauck. "Jon's drive to answer questions through science helped elevate discussions with partners on how best to work with the resources provided by the Mississippi and

Minnesota rivers." Hendrickson earned his bachelor's and master's degrees in civil engineering from the University of Minnesota.



*Kari Hauck (left), chief of engineering and construction, and Karl Jansen (right), deputy district engineer, present Jon Hendrickson (center), with the Hall of Fame award at the Summer Awards Ceremony in Spring Valley, Wisconsin, June 27. USACE St. Paul District photo by Wendy Wells*

## St. Paul District continues support for Sacramento District projects

Story by Elizabeth Stoeckmann

The St. Paul District, along with other districts in the Mississippi Valley Division, is providing expertise and technical assistance to the Sacramento District for projects in California's Central Valley. These projects aim to improve an aging levee system that protects the area from the Sacramento, American, and San Joaquin rivers.



*Anthony Levine, St. Paul District geotechnical engineer, looks at materials in the area of Erosion Resistant Material along the Lower American River, Sacramento, California, September 2022. USACE courtesy photo*

Ben Nelson, project manager, and Dan Mielke, technical lead, provide an update on the major projects the St. Paul District is supporting.

### Lower American River (C3A)

From July through the fall of 2024, erosion protection construction will occur in the East Sacramento area with Contract 3A. Contract 3A represents an area identified as high flood risk where the levee nearly breached due to erosion during a 1986 flood event.

“The Sacramento District has been working hard on both sides of the river in this area to address high risk areas,” Nelson said. “Through Contract 3A, St. Paul District helps Sacramento District continue this work, making improvements to another high-risk area.”

In 2022, Sacramento District's Contract 1 addressed about a mile of high-risk areas along the Lower American River. In 2022 and 2023, Contract 2 addressed about a mile and half of erosion protection work.

“There's been a lot of coordination on all these projects,” Nelson said. “For Contract 3A, the Corps of Engineers has ongoing discussions with the California Department of Transportation, as they are currently doing a deck widening project on Interstate 80 that includes building piers in the river and work overlapping with Contract 3A. The city of Sacramento is also building a bike trail. We've collaborated efforts to allow these

three projects to work in the same area, at the same time.”

Travis Burrier, the civil design lead for Contract 3A, along with St. Paul District staff and a team from Sacramento District are involved in engineering during construction services this summer to see this important project through, Nelson said.

### Lower American River (C3B)

Hydraulic, geotechnical and civil designers from St. Paul District and biologists and landscape architects from Sacramento District, along with other disciplines, are developing Contract 3B for erosion protection and onsite habitat mitigation on the Lower American River.

“The project delivery team is using multiple methods best suited for specific areas,” said Trevor Kough, civil discipline lead. “Methods include bank protection, levee embankment protection, planting benches with launchablerock toes and buried launchable rock trenches.”

Based on the high flood risk and consequences and environmental sensitivity, a variety of analysis tool requiring engagement with subject matter experts and research centers have been developed to justify the minimal design needed to meet objectives.

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Contract 3B is listed as a 'Wild and Scenic River' and the reach is within the American River Parkway with a prized regional trail system. Through coordination with local agencies, the team sought to reduce impacts to bicyclists and other recreation in the American River Parkway. Project footprints were also adjusted to preserve large heritage oaks while still meeting risk objectives. Construction of Contract 3B will also need to consider restrictions due to flood season, in-water work windows to avoid impacts to fish, timing of vegetation removal and replanting windows.

"Navigating the unique terrain of Contract 3B takes careful coordination with two district



*Ben Nelson, project manager, participates in a meeting about the work for Sacramento District, April 30. USACE St. Paul District photo by Patrick Moes*

leadership chains across divisions for review and buy-in," said Brian Alberto, civil engineer.

In addition, the Contract 3B design requires integration of program level improvements with design teams and contracts. Construction is planned for 2025 and 2026.

### **Natomas Levee Improvement Project**

The Natomas Levee Improvement project includes multiple phases to improve the 42-mile ring of levees surrounding the Natomas basin. Non-federal sponsors and Sacramento District completed miles of levee improvements to date while St. Paul District is assisting on Reaches F and G future improvements.

The overall project includes Reaches A through I. Reaches F and G are about 8 miles long and include widening the existing levees by fix in-place construction, installation of a seepage cutoff walls and flattening the landside levee slopes.

"We are providing technical lead, civil, hydraulic, geotechnical, structural, mechanical, electrical, cost and specification design services with other services coming from Sacramento District," said Christine Moss, technical lead and civil design lead. "This is just another example of a multi-disciplinary design team with members across districts and divisions."

Just like the other projects, this one has its fair share of unique challenges, including coordinating with several different utility companies for relocations, she said. This spring, the team completed 100%

designs that utility companies will utilize in relocating electrical poles and transmission lines. Construction is planned after utility relocations, likely starting in 2027.

### **Lower San Joaquin River, Phase A**

In late 2022, St. Paul District design staff continued supporting Sacramento District with a levee realignment and cut off wall levee project along the Lower San Joaquin River and within the city of Stockton.

"We are providing project management, technical leads, civil design and technical specification services integrating with others design members from Sacramento District," said Ryan Frykman, technical lead.

Phase A is part of a large effort of levee improvements within this area. As of this spring, the project is within the 65% design phase with construction planned to start in 2027.

St. Paul and Sacramento district leadership staff are also exploring additional portions of the greater Lower San Joaquin River program based on the healthy relationship formed across the division and St. Paul District's ability to deliver, Frykman explained.

At the end of July, St. Paul District leadership team will conclude a comprehensive site tour, gaining invaluable firsthand insights into the district's enhanced coordination efforts. This visit underscores the commitment to supporting and advancing the Sacramento District's crucial projects in California's Central Valley, ensuring continued progress and resilience in the region's levee systems.

## Hauck prioritizes people as new engineering and construction chief

*Story by Melanie Peterson*

Kari Hauck recently started as the chief of the St. Paul District engineering and construction division. In this position, she is responsible for the execution of the work that the division is assigned, and she also serves as the district's dam and levee safety officer. "Our job is to provide water resources infrastructure for the nation, and my job is to make sure it's done safely with a commitment to high quality to meet the needs of the public," said Hauck. "Thankfully, I don't have to do that alone. I have expert staff to help on a daily basis."

People are Hauck's number one priority.

"People are vital to the agency's operations, and it's important to me that they have a positive work environment, feel supported and receive adequate training," said Hauck. She emphasized that her initial goal in the first 90 days is to understand how the division functions and determine the best ways to provide support.

"I appreciate the recent emphasis on staff health and well-being over the past 5-10 years. Balancing work and personal life is a challenge, and stress management is crucial," Hauck added. "The resilience of our staff is essential to achieving our mission."

Hauck graduated from Valparaiso University in Indiana with her bachelor's degree in civil engineering in 1997 and started working for

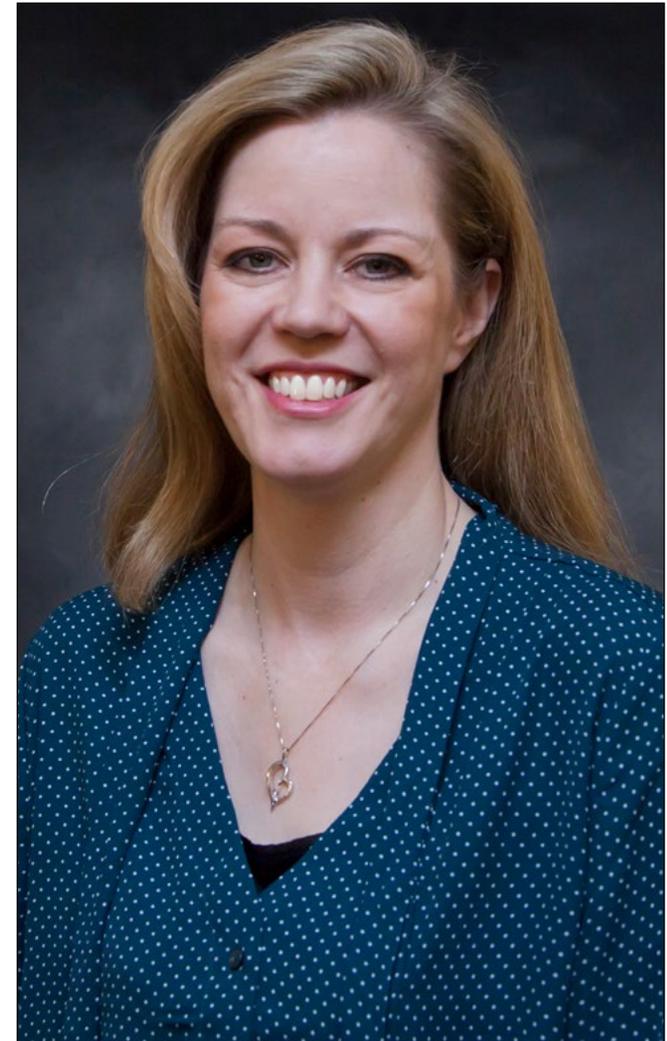
the St. Paul District as a student in 1998 while she was working on her master's degree from the University of Minnesota – Twin Cities. She graduated with her master's degree in civil engineering in 2001. After getting her master's degree, Hauck was converted to a staff engineer in the hydraulics section in the hydraulics and hydrology branch.

A formative experience in her early career was when Hauck deployed to Kuwait in 2001. She worked with the Trans-Atlantic Program Center in military construction for three months, which she said cemented her interest in public service. Hauck also served as a mission specialist and mission manager for temporary housing including a deployment to Mississippi after Hurricane Katrina in 2005. "These developmental assignments gave me a taste of management and I saw that I had the ability to help people grow," said Hauck. "It also demonstrated to my chain of command that I had the potential to develop into a leader and manager."

Additional developmental assignments have been critical to her development as a leader.

Hauck was selected to participate in the career program 18 (engineers and scientists) leadership development program where she

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*Kari Hauck, chief of engineering and construction. USACE St. Paul District photo by Emily Chavolla*

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spent six months at Corps headquarters. She also did a detail with the St. Paul District regional planning and environment division north. “The 120 days with planning was a phenomenal experience to understand what they do and the challenges they face. Perspective is always a good thing to have, so my advice to other people is reach out for opportunities even when they are outside your normal range of duties,” said Hauck.

In 2014, Hauck was selected to be the chief of the hydraulics section and in 2021 was selected to be the branch chief of the hydraulics and hydrology branch.



*Kari Huack (left), chief of engineering and construction, and Brett Coleman (right), executive assistant, plant a tree at the Sturgeon Lake Tribal Partnership Program tree planting, near Red Wing, Minnesota, June 5, 2023. USACE St. Paul District photo by Melanie Peterson*

One of the programs Hauck recommends is the leadership development programs which are offered through the district and help to teach soft skills. “While colleges offer a lot of technical skills, engineering programs don’t always emphasize soft skills and the importance of communicating effectively, thinking critically and building relationships. These programs can help fill in those gaps,” said Hauck.

Hauck’s husband works for the Levee Safety Center based in Vicksburg District and together they have a son. Hauck describes a “menagerie” of animals at their house including a dog, Moxie, axolotls, a chameleon, leopard gecko, three turtles and a koi pond in their backyard. Hauck enjoys biking, being outdoors and walking.



*Kari Hauck (left) chief of engineering and construction and Chris Bowen (right) chief of construction, attend the Lake Pepin habitat ground-breaking in Bay City, Wisconsin, May 16, 2023. USACE St. Paul District photo by Patrick Moes*

*August*  
**IS ANTITERRORISM  
AWARENESS MONTH**



**iREPORT** **i KEEP US SAFE**

Trust your instincts; if a behavior or activity makes you feel uncomfortable, REPORT IT.

Although this is not an all-inclusive list, these are some of the observations provided by the Defense Logistics Agency to report to local law enforcement:

- People drawing or measuring important buildings
- Strangers asking questions about security forces or security procedures
- An unattended briefcase, suitcase, backpack, or package
- Cars or trucks left in no parking zones in front of important buildings.
- Intruders found in secure areas
- A person wearing clothes that are too big and bulky and/or too hot for the weather
- Chemical smells or fumes that worry you
- A person who is asking questions about sensitive information, such as building blueprints, security plans, or VIP schedules, without a right or need to know
- Purchasing supplies or equipment that can be used to make bombs or weapons or purchasing uniforms without having the proper credentials

## Collaboration and partnership advances solution to potential life safety

Story by Melanie Peterson

Changing Upper Mississippi River conditions spurred collaboration between the U.S. Army Corps of Engineers, St. Paul District; the U.S. Army Engineer Research and Development Center; and navigation industry stakeholders to improve navigation at Lock and Dam 7, near La Crescent, Minnesota.

The district began addressing area challenges in 2017 with a hydraulic study, or study about the flow of water, aimed at understanding the increasing outdraft. According to industry standards, an outdraft refers to a river current pulling toward a downstream dam. This study revealed a significant shift in river flow over the past 30 years, with nearly 20% of the flow moving from the old navigation channel on the east side of Dresbach Island to the current channel along the Minnesota bank. This change led to higher water velocities above the lock, intensifying the outdraft issue.

In response, a rock weir was built in 2018 by the St. Paul District maintenance and repair crew, to slow the current, and it was extended by 260 feet in 2020 following input from the navigation industry. Despite offering some initial benefits, the weir did not completely solve the outdraft problem.

In February 2023, navigation industry representatives reported a potential “life-safety” issue with the increasing outdraft at Lock and Dam 7 at the district’s annual Mississippi Managers Meeting.



*The Lock and Dam 7 Outdraft Project Delivery Team during a ship simulation exercise at the Engineer Research and Development Center in Vicksburg, Mississippi, April 9. USACE courtesy photo*

“The outdraft makes predictable and consistent maneuverability challenging, which could potentially cause a fatality. The increased risk to the navigation mission made this a top priority for the district,” said Billy Thomson, project manager. “The upper approach to Lock and Dam 7 is uniquely shallow and narrow, which makes some traditional solutions used on other waterways not feasible.”

The project delivery team was formed shortly after the February 2023 meeting to address the ongoing challenges. “This is a critical

project that affects our navigation mission. Vessels are trafficking the lock daily, while lock staff work tirelessly to meet pressing deadlines,” Thomson said.

The team identified both short- and long-term actions and decided to take a phased approach. The culmination of Phase 1 was an ERDC ship simulation to identify a feasible design alternative that will improve navigation conditions within the upper approach. Key to this significant effort was 12 months

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of preparation and data collection. A ship simulation is a system of computers, screens, hardware and software that simulates vessels, ports, weather conditions, and traffic patterns for training, assessment and research, Thomson said.

The team's preparation also included a June 2023 design charrette with Corps of Engineers regional experts, industry partners and ERDC. A design charrette is a collaborative meeting where a group of people from different backgrounds work together to develop a plan. This event provided valuable input from experienced pilots to explore potential solutions, including the development of a custom vessel model for the simulation to best represent what is operated at Lock and Dam 7, Thomson said.

Preparation included hydraulic modeling, vessel model development and gathering site imagery to replicate the surrounding of Lock and Dam 7 to build the most realistic visuals for the approach in the simulator, Thomson said. The simulation tested different design alternatives to improve the outdraft, which mostly included different configurations of rock weirs. The actual execution at ERDC was eight days using nine different industry pilots.

"This project showcases the true power of ERDC, as it brought together numerous subject matter experts to solve a problem that directly impacts commercial navigation on a daily basis. Having all the decision makers in the same room allows for changes to the design alternatives to be made quickly and



*Upstream of Lock and Dam 7, near La Crescent, Minnesota, June 7, 2023. USACE St. Paul District photo by Wendy Wells*

evaluated immediately," said Jacob Hodges, ERDC research civil engineer.

"The success of this project so far is based on the teamwork that we have had with navigation industry and ERDC. Throughout the process, we have also been getting input from captains navigating their vessels through the lock and using that feedback as input for the simulation to get the best result," Thomson said.

The team ultimately decided on a solution that is called the "Dog-Leg" rock weir design. Phase 2, which began in May 2024, focuses on near-term implementation to effectively reduce the outdraft, which includes pre-construction engineering and design. The project is waiting on funding for construction in 2025-2026.

"It's a very challenging project, and with the river continuously changing over time, it makes the solution complicated," Thomson said.

"The Lock and Dam 7 project was a unique opportunity to collaborate with St. Paul on implementing new potentially lifesaving designs to improve navigation efforts on the upper Mississippi," Hodges said.

The St. Paul District maintains a 9-foot-deep navigation channel on the Upper Mississippi River and operates 12 locks and dams to support navigation from Minneapolis to Guttenberg, Iowa. Keeping this system open is vital to the nation's economy to reduce the stress on our roads and bridges. A 15-barge tow can move as much bulk commodities as 1,050 semis or more than 200 rail cars.

## Mississippi Valley Division leadership visits St. Paul District

Story by Melanie Peterson

The St. Paul District hosted the Mississippi River Commission, including Brig. Gen. Kimberly Peeples (who was recently promoted to Maj. Gen.), Mississippi Valley Division commander and president of the Mississippi River Commission, the week of June 3.

The tour ranged across the district. On the first day, MRC members were greeted with sunny weather and a boat ride from St. Paul, Minnesota, to Lock and Dam 2, in Hastings, Minnesota. The tour included meeting with stakeholders from the navigation industry, including Lee Nelson, president of Upper River Services.

“We greatly appreciate [Brig.] Gen. Peeples, her staff and members of the Mississippi River Commission taking the time to talk with us about operational issues at the upper end of the Mississippi River system. I think having them join us to see some areas of concern will prove invaluable over time,” said Nelson.

One area of concern discussed included the placement of river sand that is taken out of the river to maintain the 9-foot navigation channel. “We had a frank and open discussion about the challenges we face on the Upper Mississippi River. One of the biggest challenges our district is facing right now is where to store the river sand,” said Dan DeVaney, placement site manager.

The day concluded with Brig. Gen. Peeples recognizing several well-deserving St. Paul District employees with commander’s coins and a presentation of the district overview.

On the second day, MRC members took

a trip to Itasca State Park, in Park Rapids, Minnesota, to see the headwaters of the Mississippi River, Lake Itasca. The group also received a history tour from the Minnesota Department of Natural Resources. The day also included a visit to the Leech Lake Band of Ojibwe Tribal Office, where the division and commission met with leadership from the tribe, including Chairman Faron Jackson, Sr.

“Throughout the day, we were able to have some one-on-one conversations with leadership from the MRC and Mississippi Valley Division about our recreation mission,” said Jeff Steere, northern headwaters section supervisor. The St. Paul District operates 49 recreation areas, ranging from public landings along the Mississippi River to lock and dam visitor centers to full-service campgrounds in North Dakota, Minnesota and Wisconsin.

On the third and final day, MRC members participated in an informational poster session at Upper St. Anthony Falls, in Minneapolis, along with members of the National Conference of State Legislatures agricultural task force and Mississippi River Basin cohort. The large group split up to learn about some of the St. Paul District’s programs. Owámniyomni Okhódayapi, formerly known as Friends of the Falls, also presented on the history of Upper St. Anthony Falls.

“This face-to-face meeting with our MRC and Mississippi Valley Division leadership was an incredible opportunity to showcase what St. Paul District has to offer and to share some of the challenges we are facing,” said Tamara Cameron, operations division chief.



Members of the Mississippi River Commission, Mississippi Valley Division staff and St. Paul District staff, including Brig. Gen. Kimberly Peeples (center), pose for a photo at Itasca State Park, near Park Rapids, Minnesota, June 5. USACE St. Paul District photo by Melanie Peterson



Brig. Gen. Kimberly Peeples, Mississippi Valley Division commander and president of the Mississippi River Commission, crosses the beginning of the Mississippi River at Itasca State Park, near Park Rapids, Minnesota, June 5. USACE St. Paul District photo by Melanie Peterson

## USACE partners with the University of Minnesota on ecosystem study

Story by Melanie Peterson

The U.S. Army Corps of Engineers, St. Paul District, is partnering with the University of Minnesota – Twin Cities, on a new Cooperative Ecosystem Studies Unit to evaluate tree seedling survival relative to soil water and inundation.

“We are planting four different species of common trees: cottonwood, river birch, American elm and silver maples, in the floodplain of the Upper Mississippi River,” said Rebecca Montgomery, a professor in the Department of Forest Resources at the University of Minnesota – Twin Cities.



Lewis Wiechmann, forester, holds a tree seedling for planting at Indian Slough, near Wabasha, Minnesota, on the Upper Mississippi River National Wildlife and Fish Refuge, May 1. USACE St. Paul District photo by Melanie Peterson

Trees were planted the first week of May at Indian Slough, near Wabasha, Minnesota, on the Upper Mississippi River National Wildlife and Fish Refuge; a site south of Diamond Bluff, Wisconsin; and a site north of Indian Slough.

Montgomery said her research looks to understand how forests are impacted by climate change and how to adapt management to the upcoming challenges associated with climate change.

“Upper Mississippi River forests are stressed right now and new trees are not regenerating, so we are planting trees and studying what conditions in the floodplain support their growth and survival in the hopes of better understanding how we keep these forests as forests,” said Montgomery.

Montgomery, co-principal investigator for the study, along with her colleague Marcella Windmuller-Campione, also a professor in the Department of Forest Resources, said their research looks to understand how forests are impacted by climate change and how to adapt management to the upcoming challenges associated with climate change.

This project is funded through USACE’s environmental stewardship business line and managed out of the La Crescent field office in La Crescent, Minnesota.

Lewis Wiechmann, a forester with the St. Paul District in the regional planning and environment division north, said, “The study will look at the effects of different climate and environmental gradients on seedlings that are commonly found in the floodplain and drive future management of the forest.”



While planting trees, the crew encountered a new friend - a painted turtle!

Photo by Melanie Peterson

Over the next few years, the seedlings are individually tracked and remeasured to evaluate environmental gradients, Wiechmann explained.

“This will help provide valuable data to properly manage the floodplain,” said Wiechmann.

It is the policy of the St. Paul District to apply principles of good environmental stewardship to the natural and cultural resources located on Corps administered federal lands. The district manages more than 77,000 acres of land and more than 400,000 permanent easements across the Upper Midwest - an area equivalent to around 745 square miles. On these lands, the district’s natural resources staff is responsible for grassland, fisheries, forest and wetland management; regulating public use; managing water levels; establishing and enhancing vegetation; shoreline stabilization and more. The staff closely coordinates all its activities on its river lands with other federal and state natural resource agencies.

## District hosts high profile public hearing on Line 5 relocation

Story by Shannon Bauer

The St. Paul District's regulatory division hosted a public hearing in Ashland, Wisconsin, June 5, to solicit public opinion on its controversial draft Environmental Assessment for the Enbridge Energy Wisconsin Line 5 Relocation project.

Enbridge's proposed project includes replacing approximately 20 miles of the existing Line 5 pipeline, including approximately 12 miles of pipeline within the Bad River Reservation, with 41 miles of a new pipeline segment that would be located entirely outside the boundaries of the reservation. The project requires a permit from the Corps of Engineers, so the company can fill material into 998 square feet (0.02 acre) of wetlands and temporary discharge fill into 101.1 acres of wetlands and 0.20 acre of non-wetland waters (i.e., streams, swales, and ditches).

The hearing was held to gather information from the public for the Corps' consideration as part of its review of the project. The meeting drew more than 450 attendees and was held in two sessions. A lottery was held before each session to determine the speakers. Those who were not afforded the opportunity to speak were asked to submit comments in writing. Protesters for and against the project gathered outside of the hearing location, starting around 7 a.m. that morning but were directed to a prearranged gathering place. Approximately eight different media/social media outlets

covered the event. Col. Eric Swenson, district commander; Chad Konickson, regulatory chief; and John Carrell, chief counsel, served as the panel during the hearing.

To plan for the meeting, which could easily have turned contentious, Bill Sande, regulatory project manager, said, the district consulted with the Collaboration and Public Participation Center of Expertise at the Institute for Water to plan the meeting's format. Further, members of information technology, office of counsel, public affairs and security supported the hearing – with 22 district staff members from regulatory and each of these offices working at the hearing.

"The meeting went very well, considering how controversial this project is," said Sande. "For the most part, the attendees were very polite. We heard a lot of commentary on whether people were for or against the proposed project, although we did hear some substantive comments regarding potential construction related effects to waters of the United States, including wetlands.

The district released the draft environmental assessment for the project May 20 and has extended the comment period until Aug. 30 at the request of numerous organizations and individuals. Sande said that as of July 15, nearly 100,000 public comments have been received.

For more information on the project: [www.mvp.usace.army.mil/Enbridge\\_Line5-WI/](http://www.mvp.usace.army.mil/Enbridge_Line5-WI/)



Col. Eric Swenson (left), district commander, and Chad Konickson (right), regulatory chief, participate in the Line 5 relocation public hearing in Ashland, Wisconsin, June 5. USACE St. Paul District photo by Shannon Bauer



Wisconsin Rep. Angie Sapik speaks at the Line 5 relocation public hearing in Ashland, Wisconsin, June 5. USACE St. Paul District photo by Shannon Bauer

## Around THE DISTRICT



**Photo to the left** Ashley McKittrick natural resources specialist, tests the beach water to make sure the water quality is safe for visitors at Eau Galle Recreation Area in Spring Valley, Wisconsin, June 12. USACE St. Paul District courtesy photo

**Photo to the right** Members of the 2024 Executive Leadership Development Program participate in graduation, May 2, USACE St. Paul District photo by Wendy Wells



**Photo above** Ashley Kiley, natural resources specialist, participates in the annual “Goose Gala” led by the Wisconsin Department of Natural Resources, June 27, near Stoddard, Wisconsin. USACE courtesy photo

**Photo below** Tammy Wick (right), senior program analyst, receives the meritorious service medal from Karl Jansen (left), deputy district engineer, for her technical and leadership skills, devotion to mission, loyal service, and integrity in her 30 years of service. USACE St. Paul District courtesy photo



**Photo above** Maj. Josh Rud (recently promoted to Lt. Col.) (left), deputy district commander, Rojean Heyer (center), Lock and Dam 6 lockmaster and Judy Denzer, Lock and Dam 5 lockmaster, speak at the Lock and Dam 6 open house in Trempealeau, Wisconsin, July 13. USACE St. Paul District photo by Melanie Peterson

## RECOGNIZING OUR EMPLOYEES OF THE MONTH THE MVPS OF MVP



APRIL  
**JOHN BOSTRACK**  
OPERATIONS



MAY  
**ELIZABETH STOECKMANN**  
PUBLIC AFFAIRS



JUNE  
**JONATHAN BAKKEN**  
REGULATORY

## The district celebrates its employees: the summer awards ceremony

*Photos by Melanie Peterson, Wendy Wells and Dean Zwiefel*



# CROSSCURRENTS

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## News and Notes

### *New Employees*

**Andrew Aarons**, civil engineer, engineering and construction, St. Paul, Minnesota

**Matthew Boberg**, deckhand, operations, Fountain City, Wisconsin

**David Diamond**, 2nd Mate PLD Class I, operations, Fountain City, Wisconsin

**Martha Diebold**, cabin attendant, operations, Fountain City, Wisconsin

**Tracy Gurin**, cook, operations, Fountain City, Wisconsin

**Samuel Helgeson**, civil engineer, engineering and construction, St. Paul, Minnesota

**Todd Kapaun**, maintenance and repair coordinator, operations, Valley City, North Dakota,

**Lindsey Kieffaber**, architect, programs and project management, St. Paul, Minnesota

**Colin Nicklay**, natural resources specialist, operations, Federal Dam, Minnesota

**Kassandra Reynolds**, civil engineer, engineering and construction, St. Paul, Minnesota

**Zachary Sirinek**, lock and dam operator, operations, Hastings, Minnesota

**Connor Spaeth**, civil engineer, engineering and construction, St. Paul, Minnesota

**Joshua Winland**, engineering technician, operations, Fountain City, Wisconsin

### *Promotions*

**Marianna Aho**, project scheduler, programs and project management, St. Paul, Minnesota

**Alison Anderson**, supervisory biologist, regional planning and environment division north, St. Louis, Missouri

**Samuel Banicki**, lock and dam operator, operations, Minnesota City, Minnesota

**Devon Bemis**, marine machinery mechanic, operations, Fountain City, Wisconsin

**Parker Brand**, engineering equipment operator, operations, Fountain City, Wisconsin

**Peter Burke**, lock and dam operator, operations, La Crescent, Minnesota

**Cheyenne Carlin**, hydrologic technician, engineering and construction, St. Paul, Minnesota

**Hannah Caudill**, geographer, regional planning and environment division north, St. Louis, Missouri

**Elizabeth Chapes**, lock and dam operator, operations, La Crescent, Minnesota

**Kaleb Doerr**, engineering equipment operator, operations, Fountain City, Wisconsin

**Dylan Duellman**, lock and dam equipment mechanic, operations, Minnesota City, Minnesota

**John Farone**, lock and dam operator, operations, Minneapolis, Minnesota

**David Francksen**, survey technician, operations, Fountain City, Wisconsin

**Justin Garrett**, supervisory biologist, regional planning and environment division north, St. Louis, Missouri

**Kari Hauck**, chief of engineering and construction, engineering and construction, St. Paul, Minnesota

**Thomas Hayek**, regulatory specialist, regulatory, St. Paul, Minnesota

**Brett Hoff**, marine machinery mechanic, operations, Fountain City, Wisconsin

**Justine Hunt**, realty specialist, real estate, St. Paul, Minnesota

**Jacob Jandl**, marine machinery mechanic, operations, Fountain City, Wisconsin

**Paul Johnson**, engineering technician, engineering and construction, St. Paul, Minnesota

**Spencer Johnson**, marine machinery mechanic, operations, Fountain City, Wisconsin

**Bryce Kingsley**, marine machinery mechanic, operations, Fountain City, Wisconsin

**Mitchell Knegendorf**, civil engineer, engineering and construction, St. Paul, Minnesota

**Dillan Laaker**, biologist, regional planning and environment division north, Peoria, Illinois

**Brent Lenke**, lock and dam operator, operations, Red Wing, Minnesota

## News and Notes, cont.

**William Long**, hydrologic technician, engineering and construction, St. Paul, Minnesota  
**Chad Longmire**, lock and dam operator, operations, Eastman, Wisconsin  
**Raymond Marinan**, realty specialist, real estate, Rushford, Minnesota  
**Natalie McGlinch**, regional economist, regional planning and environment division north, St. Paul, Minnesota  
**Collin Moratz**, biologist, regional planning and environment division north, Moline, Illinois

**Joel Moser**, lock and dam operator, operations, Guttenberg, Iowa  
**Jordan Reichel**, lock and dam operator, operations, Alma, Wisconsin  
**Jason Schieffer**, marine machinery mechanic, operations, Fountain City, Wisconsin  
**Brian Schmit**, civil engineer, engineering and construction, St. Paul, Minnesota  
**Mina Shenouda**, engineering technician, engineering and construction, St. Paul, Minnesota

**Christopher Stai**, chief of maintenance and repair, operations, Fountain City, Wisconsin  
**Cole Stai**, lock and dam operator, operations, Winona, Minnesota  
**Jeffery Stoner**, lock and dam operator, operations, Minnesota City, Minnesota  
**Donald Strittmater**, facility services assistant, operations, Fountain City, Wisconsin  
**Ellen Tabako**, natural resources specialist, operations, Crosslake, Minnesota

**Chad Urich**, lock and dam operator, operations, Minneapolis, Minnesota  
**Jeremy Webb**, realty specialist, real estate, St. Paul, Minnesota  
**Tom Yang**, realty assistant, real estate, St. Paul, Minnesota  
**Julia Zumberge**, civil engineer, engineering and construction, St. Paul, Minnesota

## Retirements

**Mike Knoff**, chief of engineering and construction, engineering and construction, St. Paul, Minnesota

## Congratulations

**Brad Bauer**, engineering and construction, passed the professional engineer exam in May  
**Pat Dowd**, engineering and construction, and his wife Tessa, welcomed Calvin Dowd June 10, at 21 inches and 8 pounds 11 ounces



**Pat Dowd**, engineering and construction, graduated from the University of Minnesota and the SMART scholar program in May with a masters of science degree in civil engineering with minors in public policy and earth sciences  
**Craig Jarnot**, regulatory, and his wife Candace, welcomed Quinn Renee Jarnot, May 5, at 20 3/4 inches and 7 pounds, 3 ounces



## News and Notes, cont.

**Jake Zanon**, operations, and his wife Emily, welcomed Kyah Zanon on May 2, at 21 inches and 7 pounds, 15 ounces



## Taps

**Judy Parker** passed away Dec. 29, 2023. She was a program analyst in the programs branch and worked on many projects including Grand Forks and Devils Lake



*Mike Vogt, safety specialist, donates blood at the district's blood drive, July 17. USACE St. Paul District photo by Tina Shivel*

## District participates in blood drive

*Story by Elizabeth Stoeckmann*

The district office held its second blood drive with the American Red Cross, July 17. More than 38 employees donated blood.

“Our successful blood drive proves that together, we can make a difference,” said Tina Shivel, occupational health nurse. “Each donation, saves up to three lives.”

Shivel said she is happy to see the district's enthusiasm to help others. The next blood drive is scheduled for Oct. 2.

## Length of Service Awards

### 10 years

James Cook, programs and project management  
Eric Dykman, operations  
Sean Kelly, regulatory  
Steven Lee, engineering and construction  
Daniel Meden, planning  
Melanie Peterson, public affairs  
Alex Webb, office of counsel

### 15 years

Angela Deen, programs and project management  
David Francksen, operations  
Evan Ingebrigston, regulatory  
David Keune, operations  
Brad LaBadie, operations  
Alexander Nelson, engineering and construction  
Lawrence Puchalski, regulatory  
Luke Schmidt, engineering and construction  
Thomas Schmit, engineering and construction

### 20 years

Kelly Ammerman, operations  
Tonya Baker, programs and project management  
Samuel Banicki, operations  
Mike Neumann, operations  
Robert Slininger, engineering and construction  
Aaron Tappendorf, operations

### 25 years

Chris Bowen, engineering and construction  
Raelene Hegge, regulatory  
David Potter, planning

### 30 years

Dan Cottrell, operations  
Paul Manders, operations  
Rebecca Seal-Soileau, engineering and construction

### 35 years

Mark Brant, resource management

### 40 years

Terrance Jorgenson, engineering and construction

### 50 years

Marv Hrdlicka, engineering and construction



Congratulations on your retirement Al Beasley! Al will be retiring as the front desk security officer.

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Program provider



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Consultation | Legal  
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