

(cover) Cindy Ward, senior project engineer, examines engineer specifications at Pigs Eye Lake, near St. Paul, Minnesota, Aug. 10. USACE St. Paul District photo by Elizabeth Stoeckmann



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,

Wow! What a summer! It's hard to believe it's coming to an end. We celebrated several big accomplishments and continued to achieve the mission!

My summer started with a tree planting at Sturgeon Lake to commemorate the completion of our FIRST Tribal Partnership Program project. This is an awesome program where we can work with our tribal partners to benefit the environment. This was only the second project completed in the nation under this program. Special thanks to Kim Warshaw and Andy Meier for making this tree planting a reality.

In June, we celebrated our teammates at the summer awards ceremony. It was great to see so many of you in attendance and to hand out so many awards! Thanks to the committee that put the event together.

July was a busy month. We said farewell to Maj. Gen. Diana Holland and welcomed our new Mississippi Valley Division Commanding General, Brig. Gen. Kimberly Peeples. We also marked the completion of the FIRST ecosystem project under the Navigation and Ecosystem Sustainability Program with a ribbon cutting ceremony for the Pool 2 wing dam notching project. Thanks to the awesome team, to include our partners in the Rock Island District and the Minnesota Department of Natural Resources, who worked quickly to put this event together and worked to complete this project.

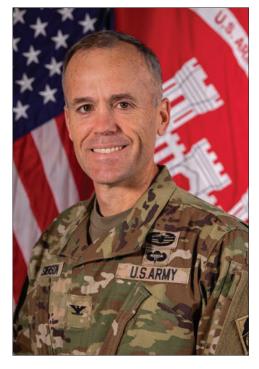
We celebrated another FIRST in the nation with the signing of a Section 217 agreement for an inland waterway with the city of Wabasha, Minnesota. This agreement allows the city to manage the river sand that we dredge from the Mississippi River in the lower Pool 4 area. This agreement has been six years in the making! Thanks to Bob Edstrom,

Paul Machajewski, our real estate division and the rest of their team for making this a reality!

We also hosted two big events at Sandy Lake Dam: the Sandy Lake Dam rehabilitation ribbon cutting and project dedication and the "Mikwendaagoziwag" (Ojibwe for "We remember them") memorial ceremony. Thanks to Tammy Frauenshuh, Jeff Steere, Hunter Simonson and many others for welcoming us to the site. You can read more about all of these events in this issue.

This issue also looks at some of our projects out of our Eastern Area Office. Read on to learn about their hard work!

As you've seen from our security office, August is anti-terrorism month. Always remember that if you see something, say something. Sometimes our annual training can seem like a box to check, but it's important that we pay attention and REINFORCE what we already know.



Safety and security is EVERY-ONE'S responsibility.

Respectfully, Col. Eric Swenson

Historic agreement creates river sand management partnership

Story by Patrick Moes

The St. Paul District and the city of Wabasha, Minnesota, inked a historic partnership agreement along the shores of the Mississippi River at the National Eagle Center in Wabasha, July 24.

Wabasha Mayor Emily Durand and St. Paul District Commander Col. Eric Swenson signed a pact for the management of dredged river sand removed from the Mississippi River. The agreement, also known as a Section 217 partnership, was years in the making and is a non-binding effort allowing the Corps to partner with the city to help manage the river sand removed from the 9-foot navigation channel within the greater Wabasha area.

Bob Edstrom, project manager, said the plan is the first of its kind for inland waters within the United States and represents a unique solution for the community and the Corps. He said approximately 250,000 cubic yards of sand is generated within the Wabasha area annually. "Having a partner in the city of Wabasha significantly helps us ensure a safe, reliable navigation system," said Edstrom. "The agreement will

help the community determine what is best for their needs, while providing us more time to focus on maintaining nearly 90-year-old navigation infrastructure."

Caroline Gregerson, city of Wabasha administrator, said the partnership is a huge step forward for the community. "This is a historic agreement for the city of Wabasha," said Gregerson. "I think it demonstrates how a small town can capitalize on its river resources to come up with creative solutions to local challenges."

John Friedmeyer, Wabasha Port Authority president, echoed Gregerson's comments and praised the collaboration of so many to reach this milestone. "The agreement signed between the city and the Corps provides the city the ability to manage dredged river sand in a manner that ensures the health, safety and wellbeing of our community," he said. "That's been the city's goal from the onset. This agreement allows our community the opportunity to not have to worry about how the sand is moved off the river. It

Story continued on Page 5



(left) City of Wabasha, Minnesota, Mayor Emily Duran, and (right) Col. Eric Swenson, St. Paul District commander, sign a partnership agreement during a ceremony at the National Eagle Center in Wabasha July 24. USACE St. Paul District photo by Patrick Moes

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allows for constructive use of the product both publicly and privately. Rather than a threat to the community, it's become an opportunity."

The partnership originated after the initial draft plan in 2017 was rescinded following a public review. Edstrom said he remembers hearing from citizens about the need to have a stronger voice in deciding what would work best for their community.



Bob Edstrom, project manager, speaks during a signing ceremony at the National Eagle Center in Wabasha July 24. USACE St. Paul District photo by Patrick Moes

City and Corps officials began collaboratively working to develop a shared solution following the initial plan. Gregerson commended the efforts and desire to find a win-win solution. "I was so impressed with the staff we've worked with at the Corps," she said. "They were professional, made meetings fun, and they always remained open and honest with us. A lot of trust was built during the process."

Looking ahead, the Corps will pay the city a nominal fee, or tipping fee, to manage the movement of river sand from temporary sites near Wabasha to permanent locations where it can be used for a variety of beneficial reuse activities. Edstrom said the primary benefit of the agreement is the fact that it provides the city with more control over material placement while affording Corps staff more time to focus on maintaining the navigation channel.

"The agreement may have taken longer than we originally expected, but we wanted to ensure we got it right and that it worked for everyone involved," said Edstrom. "This partnership is a perfect example of what can be done when everyone is willing to roll up their sleeves and focus on what is most important for the community.

Teens tag along to work

Story by Elizabeth Stoeckmann

Teenagers thought it was cool to learn about the Corps of Engineers during a "Bring your teenager to work day" held at the St. Paul District, June 21.

More than 30 teens toured the district office to learn about navigation, water management, dams, levees, electrical, structures, civil works, geographic information, river sand, rocks, a unique river lab model demonstrating some natural river channels and ending the day with a mentoring session with science, technology, engineering and mathematics, or STEM, professionals.

"The Corps' mission is amazing and being able to open children's minds with the world's endless possibilities is a great benefit of working for the Corps of Engineers," said Elizabeth Nelsen supervisory civil engineer for hydraulics.

Nelsen said it was great to be able to show teenagers real-world applications of STEM.



Teenagers gather in the St. Paul District office to learn about STEM in the Corps in St. Paul, Minnesota, June 21. USACE St. Paul District photo by Elizabeth Stoeckmann

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Corps celebrates the completion of the Pool 2 wing dam environmental project

Story by Melanie Peterson

The St. Paul District celebrated the completion of the Pool 2 wing dam modification project with a ribbon cutting and dedication ceremony on July 25, at Lock and Dam 2 in Hastings, Minnesota.

"Today is a special day for the St. Paul District, but more importantly for our partners and stakeholders in the region who care deeply about this great river. The Mississippi is one of our nation's greatest treasures: it means a lot of things to a lot of people," said Col. Eric Swenson, St. Paul District commander. "Today we are celebrating the completion of the first Navigation and Ecosystem Sustainability Program, or NESP. ecosystem project. Sometimes the hardest part of getting a program going is getting the first project complete and today marks that milestone. Though small in scope, this wing dam notching project will enhance fish habitat in the river."

The \$324,000 Pool 2 wing dam modification project is the first ecosystem project in the nation awarded under NESP, and the first NESP project in the nation to be completed. The wing dam

notching modified the channel to provide suitable habitat for fish. The project was completed by the Eastern Area Office. Potential fish species that will benefit include channel catfish, white or yellow bass, walleye, and paddlefish.

"The strength of NESP is it's dual-purpose authority to directly benefit our nation's economy through widespread improvements to this tremendous inland waterway system, while also working to mitigate the environmental impacts our investments have had over the past 100 years and will continue to have as we leverage this important resource," said Col. Jesse Curry, Rock Island District commander. "What makes this program uniquely important to the future of the American people and exceedingly worth of continued investment, is partnerships."

NESP is a long-term program of navigation improvements and ecosystem restoration for the Upper Mississippi River System. The primary goals of NESP are to increase the capacity and improve the reliability of the inland navigation system while restoring,

protecting, and enhancing the environment through implementation of an integrated, dual-purpose plan to ensure the economic and environmental sustainability of the Upper Mississippi River System.



(left to right) Grant Wilson, Minnesota Department of Natural Resources; Col. Eric Swenson, St. Paul District commander; Col. Jesse Curry, Rock Island District commander; and Andrew Goodall, Navigation and Ecosystem Sustainability Program, or NESP, program manager, cut the ribbon at the NESP Pool 2 wing dam notching dedication ceremony at Lock and Dam 2 in Hastings, Minnesota, July 25. USACE St. Paul District photo by Melanie Peterson

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Pigs Eye Islands provide habitat and public view

Story by Elizabeth Stoeckmann

A Mississippi River backwater located a few miles downstream of St. Paul, Minnesota, is now home to six islands that provide habitat to wildlife and will be accessible to the public for recreation.

Known as Pigs Eye Lake, the project was designed in partnership with the U.S. Army Corps of Engineers and Ramsey County to restore natural resources while using more than 420,000 cubic yards of material that was dredged from the Mississippi River to maintain a navigable channel

"We designed these islands to provide multiple layers of habitat improvement throughout the lake," said Aaron McFarlane, biologist for the project.

The islands will provide resting habitat for migratory birds and waterfowl, McFarlane explained. The protected areas on the islands will provide calm water and aquatic plants as shelter for aquatic animals. The islands will also protect and enhance the lake and shoreline around them by breaking up the strong wind and waves across the lake.

Building islands is a process.

To build these islands, contractors bring river sand from a few miles downstream on the river and then transport it to Pigs Eye Lake on barges. From there, the material is loaded into a hopper and pumped through over 4,000 feet of pipe that traverses the shallow lake to the designated location on the islands. At that point, several bulldozers and an amphibious excavator form the sand into shapes designed to provide optimal habitat benefits.

Cindy Ward, project engineer, from the Eastern Area Office is responsible for the quality assurance of the island construction project, design features and important milestones.

"The islands will greatly improve Pigs Eye Lake shoreline and habitat," Ward said. "The islands also reduce wind fetch that blows across the lake reducing sediment and erosion and allowing for more protected areas for fish and wildlife to thrive."

The Corps awarded the \$14.7 million contract in 2021 and con-

struction began in 2022. Contractors are finishing the placement of granular fill and will then place riprap, topsoil and seeding this fall with willow planting in the spring 2024.

The project is scheduled for completion in 2025.

Upon completion, the project footprint is approximately 20 acres, but the islands will benefit the entire 628-acre Pigs Eye Lake. The public will be able to view the islands from the surrounding area park trails as well as kayaking or small boat access on the lake.



Construction continues at Pigs Eye Lake near St. Paul, Minnesota, Aug. 10. USACE St. Paul District photo by Elizabeth Stoeckmann

Corps selects Ruyak for Hall of Fame

Story by Dave Elmstrom

The St. Paul District, recently named Jim Ruyak of Remer, Minnesota, as one of its 2023 hall of fame inductees.

Ruyak, former Mississippi River headwaters project area manager, was honored for a career with the U.S. Army Corps of Engineers that spanned 59 years. After starting with the Pittsburgh District, he joined St. Paul in 1973 to work on constructing La Farge Dam. Ruyak is well known in Minot, North Dakota, leading flood fights in 1974, 1975, 1976 and 1979 sparing the city for which he received the Exceptional (Distinguished) Civilian Service award, the highest civilian award. In 1979 he became the project area manager for the six Mississippi River headwaters dams.

After the Persian Gulf war in 1991, Ruyak deployed on the first of three tours to Kuwait for which he received the Superior Civilian Service award. After the 2001 twin towers attack, and into 2019, Ruyak was assigned to the Transatlantic Division to recruit civilians for the Corps' mission in Afghanistan. Ruyak passed away

at his home in Remer, Minnesota, in 2019.

"Jim has left a lasting legacy in the St. Paul district, and around the world in a variety of missions," said Col. Eric Swenson. "After an exceptional 59-year career, including a great history of fighting floods in this area, this honor is a lasting tribute to a committed public servant."



Jim Ruyak, recent inductee into the St. Paul District Hall of Fame. USACE St. Paul District courtesy photo

Eggers selected for Hall of Fame

Story by Dave Elmstrom

The St. Paul District recently named Steve Eggers as one of its 2023 hall of fame inductees.

Eggers served the Corps for nearly 44 years, most recently as a senior ecologist for the regulatory division. Eggers substantially contributed to aquatic resource protection and restoration throughout Minnesota and Wisconsin by publishing technical manuals, contributing to the design, construction, and monitoring of wetland restoration projects, and serving as an instructor and mentor to thousands of federal and state regulators, consultants, compensatory mitigation bank sponsors and the public. He retired in 2021.

Eggers' positive influence spans the country, as evidenced by his contributions to national committees and unsurpassed technical assistance to other districts working to improve their compensatory mitigation programs.



Steve Eggers, recent inductee into the St. Paul District Hall of Fame. USACE St. Paul District courtesy photo

"Steve exemplifies the Army values, as he worked tirelessly to ensure successful wetland restoration and mentor wetland professionals throughout the country," said his former supervisor Desiree Morningstar, chief of the technical services branch. "His work will have enduring impacts on wetland restoration."

Peeples assumes command of the Mississippi Valley Division

Story by Mississippi Valley Division public affairs office

Brig. Gen. Kimberly A. Peeples took command of the Mississippi Valley Division, or MVD, during a ceremony in Vicksburg, Mississippi, July 12. Maj. Gen. William Graham, the deputy chief of engineers presided over the event. Peeples assumed command from Maj. Gen. Diana Holland who will retire after 33 years of service.



Brig. Gen. Kimberly A. Peeples, commanding general of the Mississippi Valley Division. USACE courtesy photo

As the new MVD commander, Peeples will hold the position of the senior military officer in the division, which is responsible for water resources engineering solutions in a 370,000-squaremile area, extending from Canada to the Gulf of Mexico and encompassing 12 states.

Peeples has a wealth of knowledge and brings vast experience to the MVD region. In addition to her command of the U.S. Army Corps of Engineers Lakes and Rivers Division, some of her previous assignments include commander of Joint Base Myer-Henderson and Fort McNair, engineer bridge platoon leader in the 74th Engineer Company, vertical construction platoon leader in Alpha Company. She was also program manager for the Corps at the Kansas City District, Kansas City, Missouri, brigade engineers of the 4th Brigade, 3rd Infantry Division, Fort Steward, Georgia. Her deployments include support of Operation Joint Endeavor (Bosnia) and two deployments supporting Operation Iraqi Freedom.

A native of Akron, Ohio, Peeples graduated from the United States

Military Academy at West Point with a Bachelor of Science in French and was commissioned into the engineer regiment. In addition, she holds a master's degree in construction management from the University of Washington and a master's in strategic studies from the Army War College.

Her awards and decorations include the Legion of Merit Award

with Oak Leaf Cluster Award, Bronze Star Medal with Oak Leaf Cluster, the Defense Meritorious Service Medal, the Meritorious Service Medal with three Oak Leaf Clusters, the Army Commendation Medal, and the Joint Service Achievement Medal. She is also a recipient of the General Douglas MacArthur Army Leadership Award.



Lt. Gen. Scott Spellmon (right), chief of engineers, presents Brig. Gen. Kimberly A. Peeples (left), a flag during the change of command ceremony in Vicksburg, Mississippi, July 12. USACE courtesy photo

The St. Paul District celebrates the completion of a Tribal Partnership Program project

Story by Melanie Peterson

On a hot summer day in June, a group of St. Paul District employees and representatives from the Prairie Island Indian Community, ventured in boats to Buffalo Slough, near Red Wing, Minnesota, to celebrate the Sturgeon Lake Tribal Partnership Program with a ceremonial tree planting.

This was the first Tribal Partnership Program project completed in the Mississippi Valley Division and the second nationwide.

Col. Eric Swenson, district commander, gave brief remarks, before offering tobacco. "When you offer tobacco, it often comes with an ask. My ask is that we can open our minds and hearts to this partnership and connection to the earth. I ask that we can actively listen to each other and grow this relationship for the betterment of all the people who depend on this island and this great river," Swenson said.

Michael Childs Jr., Prairie Island Indian Community treasurer,

spoke and offered a tribal prayer. "In my lifetime, I've seen the erosion of this island. It's quite stark to see how things have changed. It's good to see some of the restoration work," Childs said.

About 25 people helped to plant bur oak and hackberry trees under the instruction of Andy Meier, Corps forester. There was a mix of employees from the Corps and members of the tribe, including several children that participated.

The \$1.3 million project is important to reestablishing muskrat, beaver and deer habitat and protect a large bald eagle's nest. It also reestablishes floodplain forest habitat with native trees and eradicates (or reduces) invasive reed canary grass. The project is vital to our nation in protecting and preserving culturally significant land.

The restoration and stabilization efforts of the island further protects Buffalo Slough where there are at least 29 mussel species, of which the density tripled to 1.7 million mussels from 2010-2017.

The tribal project partnership agreement was signed in February 2021 and construction began

in July 2021. Construction was completed by the St. Paul District's maintenance and repair crew and the rest of the trees were planted by Corps staff and a contractor.



Col. Eric Swenson (right), district commander, and Michael Childs, Jr. (left), Prairie Island Indian Community treasurer, plant a tree at the ceremonial tree planting on Buffalo Slough Island, near Red Wing, Minnesota, June 5. USACE St. Paul District photo by Melanie Peterson

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Corps celebrates completion of Sandy Lake Dam rehabilitation

Story by Elizabeth Stoeckmann

The St. Paul District celebrated the completion of the Sandy Lake Dam rehabilitation project with a ribbon cutting and dedication ceremony at the Sandy Lake Recreation Area, near McGregor, Minnesota, Aug 2.

The ceremony highlighted the Sandy Lake Dam repairs and upgrades that were completed during the last three years on the 128-year-old dam.

"Today we celebrate the rehabilitation of our dam for the benefit of all who gather here and particularly for those who have sacred and spiritual ties to the site," said Tamara Cameron, chief of operations.

This \$5.3 million project consisted of a series of upgrades to the existing dam structure including replacement of a deteriorated bulkhead wall in the lock chamber, replacement of six main water control gates, installation of a new slide gate in the log sluice chamber, removal and replacement of the 130-year-old timber upstream apron (upgraded to concrete) and updated electrical service.

"I'm really thankful for our contractor for getting this project across the finish line, and I'm really excited for our campers to return to our beautiful headwaters area," said Col. Eric Swenson, St. Paul District commander.

This dam was authorized in 1870. as part of the nation's first reservoir system. It was originally designed to support Mississippi River navigation in Minneapolis during the summer but has evolved to do so much more. With the completion of the locks and dams system on the Mississippi River in the 1930s, the Sandy Lake Dam, and the other five Mississippi River Headwaters reservoirs, were quickly assigned new roles to include flood risk management, recreation, fish and wildlife conservation, water supply and water quality improvement.

"It's important to us to maintain and serve as stewards over the natural resources that are very significant to our tribal partners," Cameron said.

The project demonstrates partnership capabilities. "One of the most spectacular things about our agency is the ability to partner, and this project demonstrated that," said Kimberly Warshaw, project manager. "Thank you to our contractor, tribal partners, the Mississippi Headwaters board and park volunteers who make this recreation site so fantastic."

The campground opened for the season on May 5, following a two-year closure due to the dam rehabilitation project. Campground reservations can be made up to six months in advance by going online to www.recreation. gov or calling 1-877-444-6777.



Kim Warshaw, project manager, speaks at the Sandy Lake dam dedication ceremony at Sandy Lake Recreation Area, near McGregor, Minnesota, Aug. 2. USACE St. Paul District photo by Dave Elmstrom

Demolition of Drayton Dam improves fish passage

Story by Elizabeth Stoeckmann

A two-year project is nearing completion as contractors complete the removal of Drayton Dam to help native fish reach the open source of the Red River.

Removing the last low-level dam on the Red River is part of an environmental mitigation project for impacts to the Red River associated with the Fargo, North Dakota/Moorhead, Minnesota, Metropolitan Area Flood Risk Management project and will remove ecological barriers, restore



An excavator removes Drayton Dam, near Drayton, North Dakota, June 27. USACE St. Paul District photo by Patrick Moes

natural resources and reconnect the entire river.

"We are improving river health while improving public safety," said Justin Fisher, biologist and project manager.

The \$7.7 million project, located near Drayton, North Dakota, started in July 2022 and features a new dam with an arched rock rapids fish passage structure to accommodate fish passage and improve public safety. The project area on the North Dakota side will also include a constructed fishing platform that can be easily accessed from the nearby parking lot adjacent to the river.

The Corps' contractor, HSG Park Joint Venture, LLC in Harvey, North Dakota, has been stockpiling riprap and boulders for the new rock way and placing sheet piling as retaining walls in preparation for the removal of the old dam since August 2022.

The new dam will include a sloping set of rapids with a rock passageway that will end at the face of the old dam. Rocks and boulders will be placed in pat-

terns, creating pools through which fish can freely pass. The completed project will remove the last impediment to fish between the source of the Red River at Wahpeton, North Dakota/Breckenridge, Minnesota, to the St. Andrews Lock and Dam in Lockport, Manitoba, north of Winnipeg.

The project is scheduled for completion in the fall of 2024 with final landscaping and amenities.



Roy Lawson, construction representative, oversees the removal of Drayton Dam, near Drayton, North Dakota, June 27. USACE St. Paul District photo by Patrick Moes

Moes named Public Affairs Officer of the Year

Story by Elizabeth Stoeckmann

The U.S. Army Corps of Engineers, Mississippi Vally Division, recently selected Patrick Moes, Rosemount, Minnesota, resident, and district deputy public affairs chief, as its public affairs officer of the year.

The division presents this annual award to the top public affairs officer within the division's six districts. Moes received the award in recognition of his leadership, dedication and devotion to duty. As a public affairs specialist for the past 24 years, Moes has helped hundreds of thousands of citizens learn more about the Corps of Engineers while providing critical public safety information during numerous disasters.

Moes' accomplishments last year included volunteering to support the Corps of Engineers at the national level by deploying in support of Hurricane Ida recovery efforts and Sheyenne River and Rainy River flood response efforts and working closely with district leadership to keep both the public and district employees informed during these events. He made improvements to increase traffic and visibility to the district's

website and executed one of the most robust media relations programs in the entire Corps of Engineers.

Moes' high-quality public affairs products have been featured on Department of Defense, Federal **Emergency Management Agency** and White House social media platforms, as well as shared by the media and the public, bringing high visibility to the U.S. Army Corps of Engineers. Additionally, Moes' mentored people across the Corps of Engineers and internationally through the Department of Defense Civil-Military Emergency Preparedness Program. He is applauded and well known for his leadership abilities.

"Patrick is one of the hardest working, talented and level-headed public affairs practitioners in the business," said Shannon Bauer, U.S. Army Corps of Engineers, St. Paul District, public affairs chief and Moes' supervisor. "He always puts the public and his customers first. We are absolutely lucky to have him with us here at the St. Paul District!"



The U.S. Army Corps of Engineers, Mississippi Valley Division Commander Maj. Gen. Diana Holland presents St. Paul District Deputy Public Affairs Chief Patrick Moes with a coin of recognition as the Mississippi Valley Division public affairs officer of the year, in Vicksburg, Mississippi, June 9. USACE St. Paul District photo by Shannon Bauer

Partnerships promote growth along the Mississippi River

Story by Melanie Peterson

The St. Paul District, in collaboration with the U.S. Forest Service and U.S. Fish and Wildlife Service, is actively working to rehabilitate floodplain forests, and one of the strategies is the restoration of American elm to its historic role, through selective breeding for Dutch elm disease resistance.

Between Pool 4 and Pool 9, the St. Paul District is collecting American elm twig samples from trees that have survived multiple waves of Dutch elm disease.

"The idea is to graft and grow those samples, multiply by cuttings and then test for resistance to Dutch elm disease," said Andy Meier, lead forester for the district's environmental section.

Foresters plan to plant the rooted cuttings produced from the grafted twigs at a site in Pool 8, where they can evaluate their resistance to Dutch elm disease. Any trees that show resistance will be retained on the site to produce seed for future planting efforts within the Mississippi River floodplain and beyond.

"This partnership benefits us, but

ultimately it benefits the nation as a whole because these disease-resistant trees are available to the public." Meier said. "You can buy elm trees from a landscape nursey that are disease resistant, but they are from 3-4 clones that are limited in their genetics and almost all of them are from out east. We're working to create more genetic diversity in the disease-resistance trees." The partnership is important because neither the Corps. nor the U.S. Fish and Wildlife Service have the specific expertise that the U.S. Forest Service brings to the table for plant health and plant pathology, Meier explained.

"We could go out and collect seeds from these trees and send them to a nursery, but we don't have the capacity to evaluate whether what we're doing has any benefit, and we may not be able to tell for 50 years," he said. "Bringing in the Forest Service allows us to evaluate that much more quickly."

Comparing the amount of forest in the floodplain now to the amount of forest that was there at the time of European settlement, in many areas, 50% or more of the historic forest cover has been lost and continues to be lost at a rate of about 2-3% every 10 years, Meier said. The floodplain forest is one of the most imperiled habitat types on the Mississippi River. Most of the tree samples were taken in Pool 9. "Pool 9 is a hot spot for surviving elms," he said. "More than half of the samples were from there. If you look at American elms across the United States, I think some of the twigs

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Sara Rother, forester, uses a slingshot to shoot the rope saw into the top of a tree to collect branches in Pool 9 on the Upper Mississippi River, Sept. 1, 2020. USACE St. Paul District courtesy photo

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that we collected are from some of the biggest elm trees on the landscape."

The process of collecting the samples includes using a rope saw, which Meier describes as being a little chainsaw blade that attaches to two ends of the rope and pulling that to the top of the tree while it's dormant to saw off a small twig – a diameter smaller than a finger.

After the samples were taken, they were sent to the Forest Service's Northern Research Station

in St. Paul, Minnesota, where they were grafted onto elm seed-lings in a greenhouse.

"We have shoots leafing out of the grafts," said Melanie Moore, biological technician with the Forest Service, Northern Research Station. "We'll wait until there's substantial growth, cut them up, apply rooting hormone and put in the mist to produce roots, pot them up and grow. The resultant trees are essentially clones of the parent tree."

The trees will then grow for 1-2 years, and then a subset of those will be replanted in Pool 8 in a

Melanie Moore, U.S. Forest Service, Northern Research Station biological technician, tends to the elm tree samples that were taken from elm trees with potential resistance to Dutch Elm Disease at the Northern Research Station in St. Paul, Minnesota, May 31. USACE photo by Melanie Peterson

seed orchard. The Pool 8 location was chosen for its proximity to the Corps' La Crescent field office because it will require more proactive management and maintenance than a normal planting.

"We'll then test to determine if any of those trees have resistance," Meier said. "Ultimately, we hope to be able to plant those resistant trees back into the floodplain forest and restore the original component of the landscape to a certain extent." He added that ideally in 30-50 years, those resistant trees will start to grow and produce seed naturally to pollinate other trees and increase the resistance of the natural population.

Moore said that the Northern Research Station has developed an inoculation test whereby they inject the trees with spores of the Dutch Elm Disease fungus and rate the response over time.

"One of the biggest issues that we have with floodplain forests on the Upper Mississippi River right now, is that we have very low species diversity," Meier said. "The species that can grow in the floodplain have to be tolerant of flooding. We have four of five species that are tolerant of flooding but require full sunlight to grow. Those species do very

well on newly deposited sand or sediment."

The majority of the forest, according to Meier, has an existing forest canopy and American elm and green ash are some of the only species that are capable of tolerating flooding but can also survive in shade. These are also the two most common species regenerating in the understories. Elm trees are important for many reasons, including the soft seeds they produce that provide food for wildlife like migratory birds and squirrels.

"We lost most of the American elms 50 years ago and now with green ash trees being eliminated by the emerald ash borer, we basically have a canopy with no regeneration occurring underneath it," Meier said. "As the forest is dying, it's a pre-cursor to the loss of forest overall and the conversion of that forest to another cover type." When the forest converts to another cover type, there are more invasive species such as reed canary grass.

"Our hope is that we'll be able to reinsert American elm back into that process where it will regenerate underneath those existing canopy and stop floodplain forest loss," he said.

The Corps plants seeds for success on Goose Island

Story by Melanie Peterson

The spring melt meant that Goose Island was underwater for most of the spring, which meant tree planting had to be delayed until it was hot and muddy. However, St. Paul District foresters Andy Meier, Sara Rother and Lewis Wiechmann were up to the challenge, taking one foot of mud and two feet of reed canary grass at a time, to plant the island's new seedlings.

"One of the Corps' environmental stewardship goals is to improve the habitat in the floodplains,"

Rother said. "We're reestablishing a forest cover to shade out the invasive reed canary grass and promote regeneration for a future forest and a future seed source for wildlife."

Looking at land cover data from the going back to the time of European settlement, in Pools 3-9, the area has gone from about 45% of the area being forested to about 26% of the area being forested, so about a 50% loss, Meier said. One of the most resilient trees to flooding, deer, vegetation and environmental stress is the swamp white oak tree, Meier said. Compared to other trees, swamp white oaks have a longevity of 250-300 years. On the other hand, cottonwood trees live 100-120 years and maple trees live 120-140, he explained.

Elevation is also a factor when planting trees on an island. "At lower elevations, trees like swamp white oak, river birch and honey locusts can handle a little bit more flooding," Meier said. "On higher elevation sites where there's less flooding, trees like hackberry, bitternut hickory, northern red oak and other species thrive better in floodplain areas.

"In the long run, we're trying to maximize diversity across the landscape. The more diversity in species, the more resilience to environmental threats. We think in long time scales," Meier said.

Most of the regeneration that is naturally occurring in the forests is ash and elm. "That's why having a diverse forest is important. Historically, these forests were all maple-ash-elm forests with those as the predominant species. Two of those three are affected by diseases. What happens if a disease comes along that affects maple trees?" Meier said.



Andy Meier, forester, holds some soil at Mormon Slough, near Stoddard, Wisconsin, June 2. USACE St. Paul District photo by Melanie Peterson



Sara Rother, forester, clears an area of reed canary grass for a new tree planting at Mormon Slough, near Stoddard, Wisconsin, June 2. USACE St. Paul District photo by Melanie Peterson

Eau Galle brings electricity to equestrian campground

Story by Dave Elmstrom

The Eau Galle Recreation Area, near Spring Valley, Wisconsin, recently completed the electrification of its equestrian campground, allowing RVs and horse trailers at the campground to plug in during their stay.

The \$96,000 project began this spring, and was ready for use by campers before July 4.

The project brought electricity to the park's 10 sites in the equestrian campground. Eau Galle has several miles of trails for horseback riding, as well as traditional hiking trails. The Highland Ridge Campground, for non-equestrian campers, is already electrified for most of its 46 campsites.

"Now, with this electricity, they are having a lot more options, and bringing a lot more people out here," said Mitchell Knegendorf, contracting officer representative on the project out of the Eastern Area Office. "The equestrian trails bring in not only the local people and horse clubs, but also people from around the region coming out to have a nice time on the trails."



Mitchell Knegendorf, contracting officer representative. inspects an electrical panel at Eau Galle Recreation Area, near Spring Valley, Wlisconsin, May 28. **USACE** St. Paul District photo by Dave **Elmstrom**

Recognizing our Employees of the Month: The MVPs of MVP



June

Aaron Pieplow Operations



June

Dustin Strand
Safety and Occupational Health



St. Paul District hosts summer awards ceremony

Story by Dave Elmstrom, USACE St. Paul District photos by Wendy Wells and Dave Elmstrom



Although the weather forecast and the skies looked threatening, a pleasant day greeted the St. Paul District's annual summer awards ceremony for district employees and their families at Eau Galle Recreation Area, near Spring Valley, Wisconsin.

Many activities were available for kids and adult alike. The Eau Galle park rangers brought the kids out on the water for boat and water safety demonstrations, as well as nature walks. The hydraulics and hydrology section had a stream table for some water and engineering fun. Many people participated in lawn games like cornhole and ladder toss.

The grills were fired up for a burger lunch, and then the main event commenced when Col. Eric Swenson gave out the district's awards. The afternoon commenced with a kickball tournament, won by "The Hamburglars" from engineering and construction.

Awards presented at the ceremony included:

Comment of the Commen

District coins: presented to Sean Johnston, Adam Rasmussen, John Henderson, Justin Rose, and Jennie Tyrrell for their exceptional work on the Navigation and Ecosystem Sustainability Program Island 4 project



Mississippi Valley Division Climate Adaptation Annual Award: Leigh Youngblood hydraulics and hydrology branch, in recognition for outstanding efforts in supporting the Mississippi Valley Division's Hydrology, Hydraulics, and Coastal Community of Practice

Flood Response: more than 100 district employees were honored for their work in support of this year's flood response

Hall of Fame: Steve Eggers, former senior ecologist in regulatory, and Jim Ruyak, former project area manager for the Mississippi River headwaters dams, were inducted into the St. Paul District Hall of Fame



Caree Kovacevich, regulatory senior project manager, gets a new perspective on regulatory division stream training in Afton, Minnesota, July 20. USACE St. Paul District photo by Meghan Brown



Jon Schultz, environmental section manager, speaks at a public meeting in Kellogg, Minnesota, June 26. USACE St. Paul District photo by Patrick Moes

Around the District

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Hunter Simonson (left) and Sam Lanners (right), natural resources specialists, promote water safety at a 4th of July event at Sandy Lake Recreation Area, near McGregor, Minnesota. USACE St. Paul District courtesy photo



Nancy Komulainen-Dillenburg, archeologist, paddles across Big Sandy Lake near McGregor, Minnesota, July 26. USACE St. Paul District photo by Melanie Peterson





Mike Vogt, Lock and Dam 2 supervisor, stands in front of the lock and dam at the open house in Hastings, Minnesota, July 22. USACE St. Paul District photo by Patrick Moes



Troy Frank, Lock and Dam 8 lockmaster, gives a tour to the Coulee Region Adventure camp group at Lock and Dam 8, near Genoa, Wisconsin, June 13. USACE St. Paul District courtesy photo

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News and Notes

New Hires

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

Marie-Eline Charles, procurement analyst, contracting, St. Paul, Minnesota **Zachary Day,** biologist, regional planning and environment division north, St. Louis, Missouri

James Ennis, mechanical engineer, engineering and construction, St. Paul, Minnesota

Grace Freed, civil engineer, engineering and construction, St. Paul, Minnesota

Katherine Halling, administrative support assistant, operations, Fountain City, Wisconsin

Jennifer Hubert, office automation assistant, regulatory, Brookfield, Wisconsin

Jessica Jones, appraiser, real estate, St. Paul, Minnesota

Geoffrie Kramer, civil engineer (hydraulics), engineering and construction, St. Paul, Minnesota

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

Elizabeth Marti, regulatory specialist, regulatory, Bemidji, Minnesota **Cynthia McFarland**, administrative support assistant, operations, Fountain City, Wisconsin

Caitlin Piotrowski, civil engineer, engineering and construction, St. Paul, Minnesota

Thomas Reinhardt, civil engineer, engineering and construction, Hastings, Minnesota

Adam Roerish, maintenance worker, operations, Valley City, North Dakota

Andrew Schilling, landscape architect, programs and project management, St. Paul, Minnesota

Mina Shenouda, engineering technician, engineering and construction, St. Paul, Minnesota

Patrick Stieve, civil engineer, engineering and construction, St. Paul, Minnesota

Evan Strand, lock and dam equipment mechanic, operations, Hastings, Minnesota

Michelle Swanson, construction support assistant, engineering and construction, Fargo, North Dakota

Peter Truax, landscape architect, programs and project management, North St. Paul, Minnesota

Ryan Winn, lead biologist, regulatory, Anchorage, Alaska

Kole Woyczik, engineering technician (civil), engineering and construction, Winona, Minnesota

Christopher Wrycza, cook, operations, Fountain City, Wisconsin **Tom Yang**, realty assistant, real estate, St. Paul, Minnesota

Promotions

Kipp Baures, marine machinery mechanic leader, operations, Fountain City, Wisconsin

Melissa Beaty, supervisory program analyst, operations, Springtown, Texas **Cameron Brock**, regulatory specialist, regulatory, Green Bay, Wisconsin **Cheyanne Carlin**, hydrologic technician, engineering and construction, St. Paul, Minnesota

Michael Demars, civil engineer, engineering and construction, St. Paul, Minnesota

Haley Djock, civil engineer, engineering and construction, St. Paul, Minnesota

Daniel Dzwonkowski, lock and dam operator, operations, Alma, Wisconsin **Craig Evans**, plan formulation section chief, regional planning and environment division north, St. Paul, Minnesota

John Farone, lock and dam operator, operations, Hastings, Minnesota **Renee Ferguson**, program analyst, operations, Brainerd, Minnesota

Lindsey Gatzow, accountant, resource management, St. Paul, Minnesota **Jay Grimsled**, lock and dam equipment repairer supervisor, operations, Guttenberg, lowa

Forrest Gunderson, engineering equipment operator, operations, Fountain City, Wisconsin

Landon Hill, natural resources specialist, operations, Valley City, North Dakota

Brett Hultgren, civil engineer, engineering and construction, St. Paul, Minnesota

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News and Notes, continued

Justine Hunt, realty specialist, real estate, St. Paul, Minnesota **John Incha**, civil engineer, engineering and construction, St. Paul, Minnesota

Joseph Jandrich, lock and dam operator, operations, Hastings, Minnesota **Carnot Joseph**, mechanical engineer, engineering and construction, Fargo, North Dakota

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

Benjamin Lacount, biologist, regulatory, Green Bay, Wisconsin **Cherie Law,** accounting officer, resource management, St. Paul, Minnesota

William Long, hydrologic technician, engineering and construction, St. Paul, Minnesota

Wake Madsen, engineering equipment operator, operations, Fountain City, Wisconsin

Christine Moss, civil engineer, engineering and construction, St. Paul, Minnesota

Bradley Mussman, lock and dam operator, operations, Red Wing, Minnesota

Bryce Pellock, lock and dam operator, operations, Eastman, Wisconsin **Chad Rethwisch**, lock and dam operator, operations, Eastman, Wisconsin **Maria Schneider**, secretary, operations, St. Paul, Minnesota **Christopher Settles**, construction control representative, engineering and construction, Winona, Minnesota

Robert Slininger, construction control representative, engineering and construction, Fargo, North Dakota

Cole Stai, lock and dam operator, operations, Winona, Minnesota **Ellen Tabako**, natural resources specialist, operations, Crosslake, Minnesota

Allan Vanguilder, supervisory engineering technician, operations, Fountain City, Wisconsin

Alex Webb, supervisory attorney adviser, office of counsel, St. Paul, Minnesota

Ashley Woods, geologist, engineering and construction, St. Paul, Minnesota

See Xiong, civil engineer, engineering and construction, St. Paul, Minnesota

Retirements

Arlan Baukol, lock and dam equipment mechanic, operations, Hastings, Minnesota

John Kahle, lock and dam operator, operations, Guttenberg, Iowa **Kevin Wilson**, deputy district engineer, engineering and construction, St. Paul, Minnesota

Congratulations

Stephanie Mann, mechanical engineer, passed the professional engineer exam for mechanical engineering

Rachel Perrine, regional planning and environment division north, received her masters degree in risk management from the Notre Dame of Maryland University

Arash Shams, office engineer, passed the professional engineer exam



Maj. John Walleser was promoted from the rank of Captain to Major on the Lock and Dam 9 embankment, May 5. Walleser joined the St. Paul District in the geology and geotechnical section as an engineer in January 2022 and has been an active-duty Army engineer since 2012.

Taps

Wayne Knott was a civil engineer for the St. Paul District and worked on projects on the Mississippi River. He passed away April 11.