Driven to Deliver

District leadership gathers in Red Wing for strategic planning
Page 4

St. Paul District emergency response activation includes new gadgets
Page 7
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 mailed or 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.

District Commander | Col. Karl Jansen
Public Affairs Chief | Shannon Bauer
Crosscurrents editor | Melanie Peterson
Contributing authors | George Stringham
| Patrick Moes
| Nayelli Guerrero

Address all inquiries to:
Editor, Crosscurrents
U.S. Army Corps of Engineers
180 Fifth Street East; Suite 700
St. Paul, MN 55101-1678
(651) 290-5679 | cemvp-pa@usace.army.mil

Catch up on all of the past Crosscurrents issues online at:
https://www.mvp.usace.army.mil/Media/Crosscurrents/
Comments From The Top: A message from Col. Karl Jansen

MVP Teammates,

Happy New Year! We began the year with “2020” vision to posture ourselves for a successful decade ahead and beyond. About 30 district leaders gathered in Red Wing, Minnesota, for a Strategic Governance Meeting, or SGM, Jan. 5-7 to form a unifying theme for our diverse district (our vision statement), establish long-term organizational goals and to identify guiding principles that enable everything we do.

Our vision is that we are “Driven to be a world-class District that Delivers, for our workforce, partners, region, enterprise, and Nation by BUILDING STRONG and Taking Care of People!” This vision statement reflects our noble purpose of faithfully serving the public to make people’s lives better, and it also reflects our core responsibility to develop an engaged team of people who fulfill our commitments on time, on budget and with great quality.

Looking toward 2030, we must predict changes in our district’s operating environment and continue evolving, so we are postured to maximize the value of public service.

Our program will continue to revolve around our core mission areas and business lines, and we will always be expected to accomplish these and our foundational responsibilities with excellence. However, we can raise the bar in several areas to become even better. These areas include implementing resilient navigation measures; leveraging technical and Public-Private Partnership, or P3, expertise in support of others; building upon our recognized planning expertise in the region and beyond; and continuously investing to build and retain a world-class workforce.

We have a lot of work to do upfront in order to better articulate what specific types of actions these areas will involve, how we will sequence these activities in the coming years and how this direction will be meaningful for our teammates, both individually and collectively. We will use the next six months to follow through with this initial effort.

Perhaps the thing I’m most proud of from the SGM was the development of our guiding principles (Mission, Value and People) that mirror our district acronym, M-V-P. We also identified the 12 most important individual and organizational behaviors that align with these principles (see Page 6 for the complete list). If we consistently demonstrate these behaviors, we will know that we are taking care of our people. If we take good care of our people, all else will follow. I will apply my personal leadership in the next two-and-a-half years to promote these behaviors with an aim to cement them into our overall culture and I hope you will too.

Undoubtedly spring is just around the corner! We look forward to welcoming back our terrific seasonal staff from all of our operating projects and recreational sites, so they can pick up right where they left off. High water that persisted through the fall and winter sets the stage for challenging channel maintenance and increased flood risk this spring, so we have a close eye on flood forecasts and are gearing up in case the need arises for disaster response. Paired with a ramp-up in our construction activities, we have some very busy and exciting months ahead!

As we step-up to these challenges, remember to always ACT in everything we do by Accepting personal responsibility, Committing to safety and Taking personal initiative … This is how we anchor ourselves in safety.

Thanks for all you do!
District leadership gathers in Red Wing for strategic planning

Story by Shannon Bauer

Thirty-five district and emerging leaders participated in a Strategic Governance Meeting in Red Wing, Minnesota, Jan. 7-9.

The purpose of the three-day meeting included determining the long-term strategic direction of the district and identifying key first steps to posture the district for success. The group drafted a vision statement and guiding principles, as well as scoped out four lines of effort leadership will take in an attempt to position the district for future success. The days included a number of presentations, small breakout sessions and team building activities. There were many discussions on the service the district provides, why it provides these services and how the district should go about providing these services.

“Holding an off-site is important to do from time-to-time, because senior leadership doesn’t take time during regular business hours to do a lot of strategic thinking about where the district needs to be in 10 years. One way to do this is to go off-site and not be distracted by all the fires you are typically putting out on a day-to-day basis,” said Terry Birkenstock, chief of regional planning north. “It allowed us to focus on strategy, where we think the Corps of Engineers is headed, where we think Congress wants us to focus, how we can go about continually improving.”

Megan McGuire, biologist, and Sierra Keenan, planner, served as facilitators at the off-site. McGuire said it was interesting to get to facilitate, as it involved trying to provide structure during a very fluid discussion.

“I wish all of the district employees could be there to witness the discussion,” she said. “It was awesome to see our senior leaders interacting in a way that shows how much they care about the people and the mission here.”

The vision statement the group came up with incorporated the vision of the Corps of Engineers Headquarters and the Mississippi Valley Division:

“Driven to be a world-class District that delivers for our workforce, partners, region, enterprise and Nation by BUILDING STRONG and Taking Care of People!”

The guiding principles developed focus on the Mission (we are committed to delivering our program), Value (we are passionate about using our expertise to serve others), and People (we
are dedicated to care for and develop an inspired professional workforce of trusted and reliable teammates).

“Guiding principles are behaviors we permit, practice and promote,” explained Col. Karl Jansen, district commander. “In essence, they describe our culture or the way we do things. They are behaviors we try and teach our new teammates, when we bring them on board. “See Page 6 for the complete list of guiding principles.

As for the future, the participants came up with four lines of effort to focus on to ensure the district continues to add value. The first includes looking at ways for ‘resilient navigation.’ This will involve not only finding ways to maintain navigation infrastructure but also ways to better use dredged material and the possibility of allowing lockages when the river is wide open.

The second line of effort includes working on making the district’s technical capabilities ‘agile and innovative.’ Kevin Wilson, deputy district engineer, said this includes leveraging some of our strengths in hydraulics and hydrology, private-public-partnerships or P3 and geotechnical engineering and expanding our partnerships and getting our technical expertise recognized.

The third line of effort will include becoming a watershed planning center of expertise, as well as leveraging Planning Assistance to States, the Tribal Partnership Program and the Continuing Authorities Program.

“We have a lot of customers interested in our technical capabilities, and we need to be able to reach the customers that are interested,” said Wilson.

The final line of effort includes developing and maintaining a world-class workforce. This will involve looking at hiring authorities, the work environment, professional development and more.
ST. PAUL DISTRICT GUIDING PRINCIPLES

1. We hold ourselves accountable to high standards and professional ethics.
2. We understand and follow our processes.
3. We resource and empower our multidisciplinary teams to succeed.
4. We demonstrate positive teamwork, communication, collaboration and cooperation.
5. We step-up to serve our fellow citizens and nation in times of disaster or conflict.
6. We embrace constructive conflict to yield better results.
7. We are forward-looking and use ingenuity to seize opportunities and address challenges.
8. We play to our strengths, embrace change and continuously improve.
9. We take care of one another and seek a healthy work-life balance for all.
10. We demonstrate inclusiveness and value clear, candid and transparent two-way communication.
11. We build optimistic engaged leaders who maintain a healthy work environment.
12. We invest to recruit, develop, employ and retain talented teammates.

“Guiding principles are behaviors we permit, practice and promote”
-Col. Karl Jansen
District Commander
Emergency response activation includes new gadgets

The St. Paul District is leaning forward in preparation for potential spring flooding throughout the Upper Midwest this spring. The district declared a disaster Thursday, Feb. 20, said Phil White, St. Paul District emergency management chief.

According to White, the National Weather Service forecast indicates at least a 50 percent chance of reaching major flood stage in the Red River of the North and the Minnesota and Mississippi rivers. With the potential for flooding becoming more likely, White said, it’s important to get our flood teams activated and out in the communities to assist local leaders preparing for the spring melt.

That assistance can come in two forms – technical assistance and direct assistance. White explained that technical assistance involves the district’s flood engineers working with communities to identify vulnerabilities and develop plans to reduce flood risks. Direct assistance can include providing flood fight materials such as sandbags, pumps and plastic to Corps contractors and building temporary emergency levees to protect critical public infrastructure. “We really look at it as being the last line of defense,” said White. “Once requested by a governor, we can come in and provide those key assets, such as temporary levee construction, that a local leader needs to reduce the flood risk.”

New Gadgets

This year’s flood threat will be managed a little different than previous events. Following the 2019 flood threat, White said he became frustrated by the lag in real-time information. He said he was looking for a solution that provided the district the opportunity to view information, such as

“We integrated technology into our management decision-making process that allows district leaders to get real-time information from the field, resulting in much quicker and more informed decisions.”

-Phil White
emergency management chief
flood forecasts, river flows, elevations and field reports from Corps personnel in real-time. “The St. Paul District integrated technology into our management decision-making process that allowed the district’s leaders to efficiently and effectively get real-time information from the field, resulting in the district making much quicker and more informed decisions,” said White.

Seeing this idea through to completion was a task for the geographic information system, or GIS, section. Kevin Hanson, St. Paul District geographer, developed the dashboard to meet White’s intent of being able to quickly identify areas of concern and then being able to develop solutions based on current, accurate information. Hanson and the rest of the GIS staff leveraged technology to allow Corps personnel the ability to quickly upload information and photos from the field via a mobile application. Further, this information can be seen from the district’s emergency operations center in St. Paul, Minnesota, with minimal delay. Under the previous information management system, it could take up to 12 hours to see that information. White added that the new system also allows district leaders the ability to identify where personnel are and then task them, based on location, to rapidly respond to a potential crisis.

High water flows continue to affect rivers with ice jams

Story by Melanie Peterson

This year has seen an unusual amount of ice jams on the rivers. According to Dan Fasching, Mississippi River regulator, the St. Paul District received the most volume of water on record in 2019.

High flows affected the navigation season, says Fasching, and continue to affect rivers with ice jams. According to Fasching, ice jams are caused by temperature fluctuations above and below freezing combined with high flows. Temperature fluctuations above and below freezing cause ice to form, break free and then re-form into ice jams. The problem is exacerbated by the high volume of water - more water means more ice. “The extent is surprising, it’s not really something we’ve experienced before on the river,” said Kari Hauck, chief of hydraulics. Hauck says, in lieu of blowing up the ice jams, which poses a safety hazard, the Corps monitors and observes the ice jams and lets nature take its course to resolve the issue.
The St. Paul District began conducting its annual snow surveys in February, but with a twist. We now have an app for that. Jesse Scott, hydrologic technician, has been working to digitize snow survey data collection through a mobile application called Collector for GIS.

Scott said the mobile application contains the same information as the old paper forms, but now the data can be sent to the district’s water management team and river regulators real-time. Scott, along with Bill Odell, hydrologic technician, are testing out the application this year.

“This new system allows for more collaboration with our federal partners and state partners, allowing for much more efficient use of the data for weather forecasting,” said Scott.

The process is to return to the same location as previous years. The mobile application can help surveyors get closer to the prior reference location with a compass and latitude/longitude coordinates. Geo-referenced photos can also be uploaded through the application.

Once surveyors return to the approximate survey location, they take five samples using a 0-30 in. snow tube. Odell said they have an extension that will go another 30 inches, but it’s rare they would need to use that. The samples are then emptied into plastic bags and weighed to calculate the snow water equivalent.
In 2008, Terry Zien, St. Paul District program manager and Silver Jackets team coordinator, collaborated with the Minnesota State Hazard Mitigation Officer to form a Silver Jackets team in Minnesota and formally coordinate existing interagency disaster planning and recovery efforts from the August 2007 flood in southeastern Minnesota.

The Silver Jackets program helps federal and state agencies build relationships with each other, while providing enhanced emergency planning, mitigation and response activities to counties, municipalities and tribes for natural and man-made disasters.

The St. Paul District Corps of Engineers participates in Silver Jackets by holding emergency management action plan workshops throughout the year to help communities identify local, state and federal resources and plan emergency response efforts.

“For many communities, the most difficult part of emergency planning is getting started,” said Zien. “During workshops, we help community representatives understand how to plan and act so they can effectively respond to emergencies and obtain county, state and federal assistance.”

The Silver Jackets not only fund projects like workshops, they also help coordinate interagency response to emergencies. According to Zien, the threats most communities ask for help with are floods and high-speed wind events like thunderstorms and tornadoes.

Recent Silver Jackets projects include coordinating responses to the spring 2019 floods state-wide and the 2018-19 wave events that destroyed the harbor in Duluth, Minnesota.
The St. Paul District is investing more than $18 million in tow rail systems, vital pieces of equipment which assist tows locking through locks and dams when traveling upriver.

Locks and Dams 6, 8 and 9 are the first locks benefiting from this upgrade, which have been completed in time for the 2020 navigation season. Locks and Dams 4, 5, 5A and 7 will be receiving similar upgrades in upcoming winters.

“Overall, these much needed upgrades will make the locks more efficient for tows which are locking upriver and improve safety for the navigation industry as well as our lock and dam staff,” said Kim Warshaw, project manager.

Tow rail systems at Locks and Dams 2 through 10 have been deteriorating over the past several years. Two failures at Lock and Dam 7 identified the need for a project to address serviceability and safety issues. Interim repairs at that lock were completed in 2014, however, the current project aims to repair each lock’s tow rail system with a design life-expectancy of 50 years. Repairing the system will be completed during the non-navigation seasons from 2019 to 2022.

The repair work includes removing the existing tow rail system and making necessary repairs to the concrete before installing a new system. Replacing the concrete is necessary to provide sound material to anchor the new tow rail.

Working in the elements provides its own set of challenges, as mechanical engineer Wade Carr explained. “Precision alignment of the new tow rail on the guidewalls during the winter months, combined with a condensed construction period, posed one of the greatest challenges the team faced,” Carr said.

Lock and Dam 6 was designed in-house and awarded for construction in 2018. Locks and Dams 4, 5, 5A, 7, 8 and 9 are a design-build contract where the contractor completes the plans and specifications and constructs the project. It was decided to do the Lock and Dam 6 design in-house to prove the new continuous rail concept, as well as the new traveling mooring bitt design prior to the additional sites design work.

Work at Locks and Dams 5 and 5A are planned for the 2020-2021 non-navigation season and Locks and Dams 4 and 7 are planned for the 2021-2022 non-navigation season.
The St. Paul District Real Estate Division recently received some welcome news from the Corps’ Headquarters Directorate of Real Estate. Kevin Sommerland, real estate chief, was granted approval to pursue the acquisition of a non-standard estate, or NSE, at one of the district’s long-term dredged material placement sites for Pool 2 in the Mississippi River, Feb. 25. The site is known as the Southport Placement Site and is owned and operated as a St. Paul, Minnesota, river terminal by the St. Paul Port Authority.

According to Sommerland, pursuant to the Corps’ long-standing real estate regulations, whenever land is needed for a dredged material disposal site, the standard real estate interest to acquire from a landowner is the fee simple estate. The law recognizes fee simple ownership as the highest form of ownership in real estate. It entitles the property owner to full enjoyment of the property, including the land and any structures on that land. The directorate’s approval of a less-than-fee estate, otherwise known as an easement, marks the beginning of a potential new way of doing business with some landowners located throughout the district’s area of responsibility on the Mississippi River.

“This is a game-changer for our planning process,” said Nate Wallerstedt, project management branch chief. “This affords the district with an opportunity to seek more win-win solutions that are good for taxpayers and landowners, while being able to maintain a positive public-relations image for the agency.”

Clayton Tallman, project manager overseeing the development and release of the Dredged Material Management Plan for Pool 2, said the approval is something his team has been pursuing for a long time. “We are currently finalizing the Pool 2 DMMP, and the Southport Placement Site is a key component to being able to effectively manage and maintain the navigation channel for the next 40 years. Having the authority to negotiate a less-than-fee acquisition will result in a much more stable relationship between the St. Paul Port Authority and the district.”

The approval to use a non-standard estate is specific to each acquisition. Although the district will not be able to use the Southport Placement Site’s non-standard estate at other locations along the Mississippi River, Sommerland said he believes the door has been opened for additional approvals in the future, especially at locations that are owned by another government entity. “We have numerous sites along the river that are conducive to a less-than-fee acquisition,” Sommerland said. “As long as we can clearly demonstrate the benefits that are to be gained by collaborating with landowners, we should be able to secure additional non-standard estate approvals more readily, because of this specific landmark approval.”

Real estate staff will now begin the negotiation process with the St. Paul Port Authority. As soon as an easement is in place, said Zach Kimmel, district channel maintenance coordinator, the district stands ready to place material at the site. Approximately 45,000 cubic yards of dredged material will be unloaded annually at the Southport Placement Site. This material will later be removed from the site by the St. Paul Port Authority and other users, at no expense to the Corps, restoring capacity for the next dredging season.
Arcadia flood risk management project study progresses

Story by George Stringham

The Corps of Engineers released a draft flood risk management study plan and held a public meeting for the city of Arcadia, Wisconsin, earlier this winter, bringing the aforementioned city one step closer to better protection for the community, which is bordered by three water bodies.

Arcadia is vulnerable to flooding from the Trempealeau River and two small tributaries, Turton Creek and Myers Valley Creek. The small, relatively steep watersheds of Turton Creek and Myers Valley Creek are flashy and highly responsive to intense precipitation events. Significant flood events in the basin occurred as recently as 2010 and 2017.

The draft plan for the proposed Continuing Authorities Program project is estimated at approximately $37 million and calls for a combination of levees, floodwalls, railroad closures and other elements commonly associated with a flood risk management project like this one. The draft plan also proposes commercial and residential buyouts in order to achieve flood risk reduction for the community.

This most recent study came on the heels of the 2010 flood, after which city officials approached the Corps in 2013 about finding a way to reduce flood risk to their community. Similar studies had been conducted in the 1950s and again in the 1980s, without progressing beyond the study phase.

The primary goal of a flood risk management project is to reduce the risk of flood damage, injury and death from flooding for a period of at least 50 years from the date of project implementation.

The objectives for this study were to reduce the risk to property and critical infrastructure due to flooding, increase community resilience and ability to fight and recover from flood events and reduce public expenditures related to flood damage reduction measures, action plans and post-disaster assistance.

With the public and agency reviews of the draft report complete, the next challenge for the study team will be completing remaining surveys, finalizing the report and submitting the report to Mississippi Valley Division for approval.

The city of Arcadia also has to endorse the tentatively-selected plan. The report could be submitted to division as early as July with approval occurring October 2020.
National Engineers Week

Story by Melanie Peterson

The St. Paul District celebrated National Engineers Week, Feb. 17-21. The week’s activities included presentations on current engineering projects around the district such as the Fargo Moorhead diversion.

The week also included interactive engineering challenges: the Build a Dam group challenge and the Gumdrop Structure individual challenge, which tested participants’ creativity and ingenuity.

A social media campaign through headquarters highlighted the diversity of engineers across the Corps. Six St. Paul District engineers were highlighted on the Corps headquarters’ Facebook page.

A hydraulics team creates their dam for the Build a Dam challenge during National Engineers Week, Feb. 17-21. USACE photo by Melanie Peterson

“Build a Dam” group challenge winners, from left, Robert Altmann (security), Barry Simmonds (safety), Jeff Becker (security) and Ted Hecht (security) took first place in the Build a Dam group challenge on Feb. 20 for National Engineers Week. USACE photo by Melanie Peterson
2019 UPPER MISSISSIPPI RIVER NAVIGATION STATISTICS

First Tow
April 24 - Motor Vessel Aaron F. Barrett

Last Tow
November 28 - Motor Vessel Kelly Rae Erickson

TOTAL COMMODITIES SHIPPED
81,158,220 tons

Annual lockages and tonnage were down due to record breaking water volumes and the resulting lock and dam closures.

TOTAL LOCKAGES
15,593

Commercial lockages
2,827 lockages below the 10-year average

Recreational lockages & vessels
Total lockages 12,050
Total Vessels 26,336
### Around the District

**Cross Lake Dam staff at Winterfest in Crosslake, Minnesota, Feb. 1.** USACE courtesy photo

**Bill Schmidt, Eau Galle Dam and Recreation Area, at the Government on Display Expo at the Mall of America Jan. 25.** USACE photo by Patrick Moes

**New employees meet in the district office for orientation on Feb. 11.** USACE photo by Melanie Peterson

**Scott Baker, resident engineer, and Rojean Heyer, lock-master, meet with congressional staffers at Lock and Dam 6 near Trempealeau, Wisconsin, Feb. 20.** USACE photo by Patrick Moes

**Eric Hanson, biologist, visited with students in Minneapolis, Minnesota, Jan. 28 as part of the school’s “USA Day.” USACE photo by Shannon Bauer**
Recognizing our Employees of the Month: The MVPs of MVP

December

Dan Cottrell, *channels and harbors*

January

Toni Wasgatt, *contracting*
News Hires and Seasonal Employees

**Christian Bowen**, supervisory civil engineer, engineering and construction, St. Paul, Minnesota  
**Samantha Coungeris**, biologist, regulatory, St. Paul, Minnesota  
**Gwendolyn Davis**, supervisory contracting specialist, contracting, St. Paul, Minnesota  
**Maria DeLaundreau**, biologist, regulatory, St. Paul, Minnesota  
**Charlotte DuBois**, secretary, regional planning and environmental division north, St. Paul, Minnesota  
**Jeffrey Grow**, supervisory realty specialist, real estate, St. Paul, Minnesota  
**Gwendolyn Davis**, supervisory contracting specialist, contracting, St. Paul, Minnesota  
**Maria DeLaundreau**, biologist, regulatory, St. Paul, Minnesota  
**Charlotte DuBois**, secretary, regional planning and environmental division north, St. Paul, Minnesota  
**Jeffrey Grow**, supervisory realty specialist, real estate, St. Paul, Minnesota  
**Gwendolyn Davis**, supervisory contracting specialist, contracting, St. Paul, Minnesota  
**Maria DeLaundreau**, biologist, regulatory, St. Paul, Minnesota  
**Charlotte DuBois**, secretary, regional planning and environmental division north, St. Paul, Minnesota  
**Jeffrey Grow**, supervisory realty specialist, real estate, St. Paul, Minnesota  
**Gwendolyn Davis**, supervisory contracting specialist, contracting, St. Paul, Minnesota  
**Maria DeLaundreau**, biologist, regulatory, St. Paul, Minnesota  
**Charlotte DuBois**, secretary, regional planning and environmental division north, St. Paul, Minnesota  
**Jeffrey Grow**, supervisory realty specialist, real estate, St. Paul, Minnesota

Promotions

**Andy Meier**, lead natural resource specialist, recreation and natural resources, La Crescent, Minnesota

Retirements

**Tony Fares**, civil engineer, engineering and construction, St. Paul, Minnesota, retired Jan. 12, 2020  
**Mark Koenig**, construction branch chief, engineering and construction, St. Paul, Minnesota, retired Feb. 26, 2020  
**Tom Novak**, project manager, programs and project management, St. Paul, Minnesota, retired Feb. 27, 2020

Taps

**Marvin “Marv” Levi Pedretti** passed away April 3, 2019. He began working for the Corps in 1957 at Lock and Dam 8 as a laborer. He retired as lockmaster at Lock and Dam 10 in April 1995 with more than 41 of service.


**Wallace Viestenz** passed away Jan. 10, 2020. He worked at Lock and Dam 7 and 5A during his 36 year career with the Corps.


Congratulations

**Megan McGuire**, planning, and her husband **Jeff Bussee**, welcomed **Ardea Mae McGuire Busse**, Oct. 7. She arrived at 7 lbs, 12 oz.

**Meghan Brown**, regulatory, and her husband **Nathan Brown** welcomed **Calie Anne Brown**, Oct. 22. She arrived at 6 lbs, 8 oz and 19.5 inches.