

Crosscurrents

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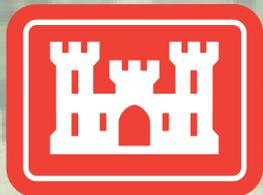
Serving the St. Paul District since 1977

**Periodic inspections
keep infrastructure working**

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**District saves green
by going green**

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

BUILDING STRONG®

On the Cover



Nate Van Loon, operations, enters the Mississippi River at Lock and Dam 5, near Minnesota City, Minn., Sept. 18 to perform an underwater inspection of the dam.

Photo by Patrick Moes

Crosscurrents is an unofficial publication authorized under the provisions of AR 360-1. It is published monthly for U.S. Army Corps of Engineers, St. Paul District.

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

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

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

Address all inquiries to:
Editor, *Crosscurrents*
U.S. Army Corps of Engineers
180 Fifth Street East; Suite 700
St. Paul, MN 55101-1678
(651) 290-5202
cemvp-pa@usace.army.mil

District Commander
Public Affairs Chief
Crosscurrents Editor
Contributors

Col. Michael J. Price
Shannon Bauer
Patrick Moes
George Stringham
Bianca Jones

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***Crosscurrents* is read by new employees like Ben Watson, security and law enforcement.**



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Comments from the top

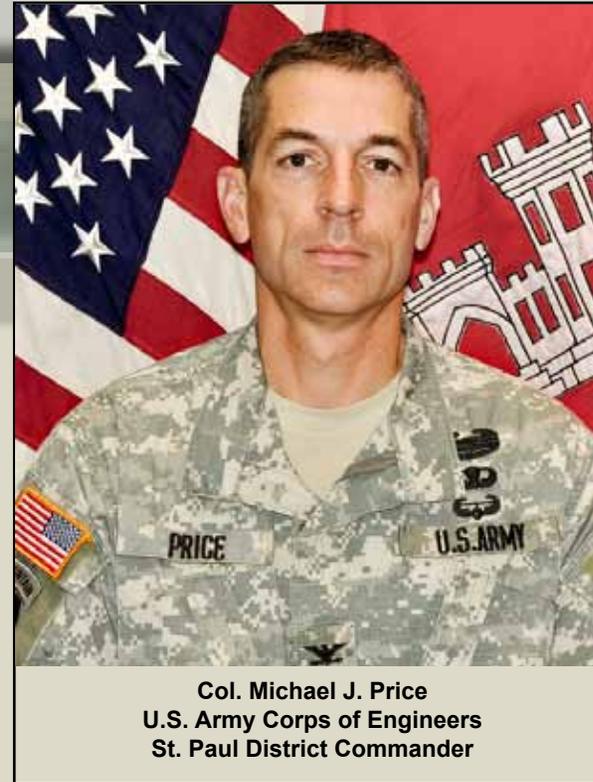
Team,

As we transition from another national election I want everyone to remember that one of the greatest aspects of our nation is that Congress has a peaceful transition every two years. There are five new congressional members (two in North Dakota, one in Minnesota and two in Wisconsin) with whom we will need to begin partnerships. Our task is to communicate to them what our missions are and the value we bring to the nation. The district leadership has already begun the process. No matter what your thoughts are on the election results, the bottom line is the district will continue to provide great engineering and environmental solutions to our customers and stakeholders with the resources the nation gives us. That is what we do.

As we celebrated Veteran's Day, I was reminded of the tremendous sacrifices Americans have made over the years to serve the people of this great nation and to protect our way of life. Time after time, when our elected leaders made the difficult decisions to go to war, the Armed Forces responded to the call. President Woodrow Wilson first proclaimed Nov. 11 as a commemoration of Armistice Day and to mark the ending of the "Great War" one year prior in 1918. Decades later and after World War II and the Korean War, President

Dwight Eisenhower made the first Veteran's Day proclamation in 1954, urging all Americans to observe this day for all veterans of all wars. Today, we carry on that tradition. So thank you to all veterans and special thanks to their families that equally sacrificed. Some of you may be both. Your mom or dad may have served or maybe your spouse served. I also want to recognize all of the Corps of Engineers civilians that have deployed in support of the current war effort. Although our personnel system does not classify you as a veteran, in my mind, you are, and I am working to get you recognized.

We recently kicked off our latest edition of the district's leadership development program. I'm encouraged to see the new crop of 'LDPers'; as they begin their journey to becoming better leaders in the district and the Corps. They will have a challenging program, and the special projects they will work on will benefit the district's business practices and the execution of the 2013 Mississippi River Commission's



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

low-water inspection trip next summer. More importantly, these eight professionals have made a commitment to bettering themselves and bettering the organization. I look forward to spending time with them as they move through the program.

Finally, I have taken some questions regarding my replacement. Yes, I

am giving up command this summer. It does not seem like it is that time already, but the Army has named the next St. Paul commander. Lt. Col. (P) Dan Koprowski is currently at the National War College in Washington, D.C. I do not know much about him yet, but, rest assured, the Army only picks the best to command, so I am confident he will do a great job. I have not heard of my next adventure yet. This one has been great and I would rather not see it end. I will continue to serve the district to my best and try to champion our cause outside our walls.

Keep up the great work and continue to set the standard in everything we do!

BUILDING STRONG



Engineers focus on periodic inspections to keep infrastructure operating

Story by George Stringham

The district's water control structures, such as the 13 locks and dams on the Mississippi River, undergo a number of site-specific inspections and assessments to keep them safe and reliable for the navigation industry.

After all of the inspections and assessments are completed, a periodic inspection report is created. The district completed seven inspection reports on locks and dams and reservoirs this year.

A multidisciplinary team, led by a professional engineer, performs the periodic inspection every five years. During the inspections, the team reviews all other site-specific inspections and assessments conducted during the past five years. Some of these include the hydraulic steel structure, bridge and dive inspections, surveys, operational condition assessment and more. These inspections and assessments are used by the periodic inspection team, in conjunction with their own inspection, to make recommendations for future analysis or repairs required at the site. The recommendations are then prioritized for budgeting.

In simplest terms, the periodic inspection is an engineering inspection of the site to ensure structural and geotechnical stability, safety and operational adequacy. The periodic inspection team members stay on site until the condition of each feature is documented and recommendations are made and prioritized by the entire team. The inspections at locks and dams are led by a structural engineer, and reservoir sites are led by a geotechnical engineer.

To consolidate the inspection efforts, the district conducts periodic inspections and operational condition assessments concurrently, because both the inspections and assessments often include the same personnel. It is a consistent, repeatable, transparent and cost



Photo by Patrick Moes

A tow enters Lock and Dam 5, near Minnesota City, Minn. Sept. 18. [Click on the photo to see the video on YouTube.](#)

effective process to identify and prioritize operations and maintenance needs at each site. The assessment results are applied to the Corps' asset management program as well as are included in the periodic inspection report as a supplementary report.

The asset management program is a comprehensive approach to the management of the Corps' assets, which, in turn, is used to develop a risk-informed planning, budgeting and execution strategy.

"Two years ago, the St. Paul District was charged with performing an operation condition assessment," said Lisa Lund, lock and dam civil engineer and lock and dam assessment team lead. "We decided to do both the periodic and operational condition assessments at the same time, because both looked at the same features."

The inspection isn't performed in isolation but with input from those who work at the facility day-in and day-out.

"[A] key feature of the periodic inspection is that we do it in conjunction with the operations staff," described Adèle Braun, a structural engineer who led the recent inspection at Lock and Dam 5A. "It's important because the lock and dam staff is here on a day-to-day basis, and they



Photo by Patrick Moes

Randy Piel, operations, and Eric Lockington, operations, check diving equipment on Nate Van Loon, operations, during periodic inspections at Lock and Dam 5 on the Mississippi River near Minnesota City, Minn., Sept. 18. The Corps' divers work in very low visibility and feel their way around the entire structure. The inspections are a part of the Corps' effort to maintain the 9-foot navigation channel at the 13 locks and dams within the district's boundaries. In 2010, 16.2 million tons of commodities were shipped on the Mississippi River within the St Paul District's area of operation, including 8 million tons of grain grown in the Upper Midwest. The industries making these shipments saved nearly \$384 million by using the inland waterways instead of overland shipping methods.

tell us some of the items that may need to be corrected that we could potentially overlook during the inspection."

In the two years since starting this approach the district has completed 10 joint inspections. The result is seen in savings in both time and cost.

District goes green in an effort to save money

Story by Shannon Bauer

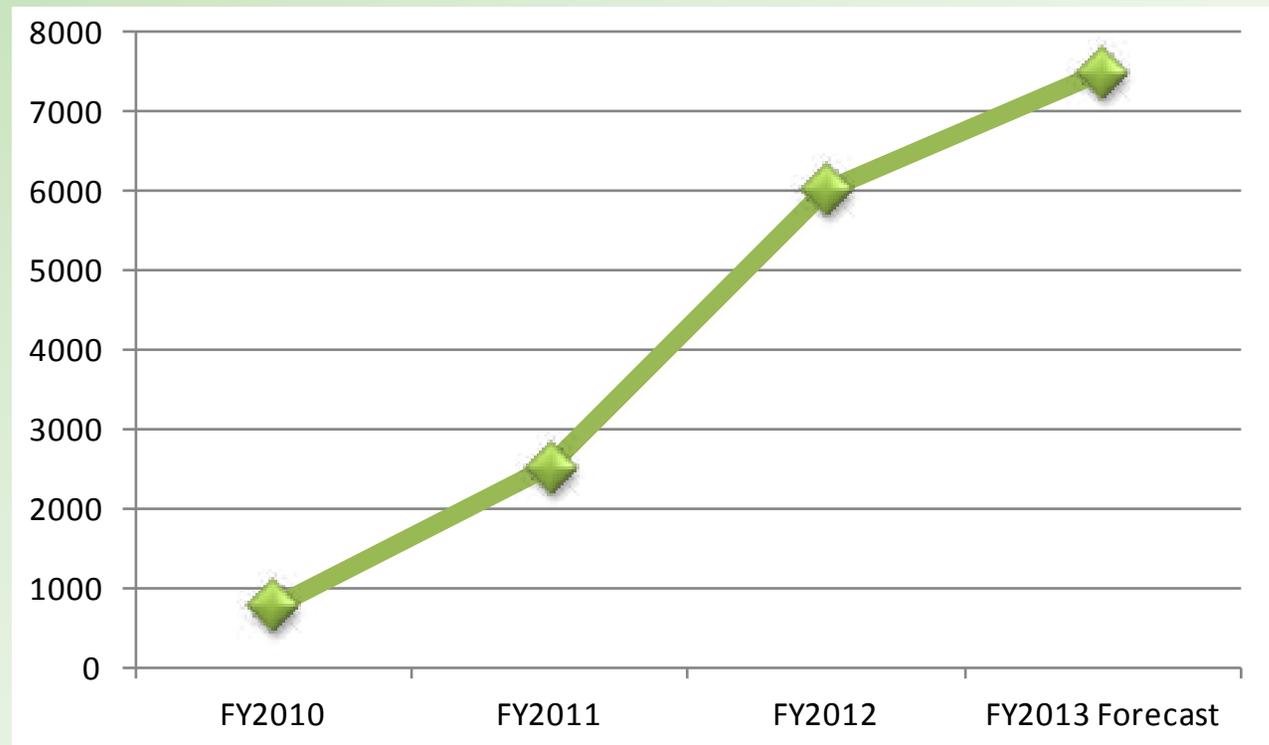
The St. Paul District is now the greenest district in the Corps of Engineers.

Okay, maybe not, but we did use more alternative fuel than any other district during the last fiscal year. In fact, the district's high usage numbers also ensured the Mississippi Valley Division placed first in this category at the division level.

Of the district's 134 GSA vehicles, 52 are able to consume E85 fuel. E85 fuel is 85 percent ethanol and 15 percent gasoline. The more E85 fuel Americans consume, the less dependent the country will be on imported oil, said Duane Isle, the district's transportation manager. It may cost more initially, he added, but it is greener in that it produces less carbon emissions than regular fuel.

In its E85-compatible vehicles this past fiscal year, district staff used more than 6,600 gallons of this fuel. The district that consumed the next largest amount, Omaha District, needed 275 vehicles to consume 5,315 gallons. Isle cautioned people not to make too many comparisons, however, explaining that other districts may not have as many E85 vehicles or filling stations available as the St. Paul District does. This district has an advantage, he said, since it is located in the Corn Belt.

Logistics Chief Mike McGarvey said it has long been a St. Paul goal to use only E85 compatible vehicles by 2015 – a goal determined before the 2009 Executive Order mandated that there be a 30 percent reduction in GSA vehicle fleet petroleum use by 2017. McGarvey said Isle kicked this program to



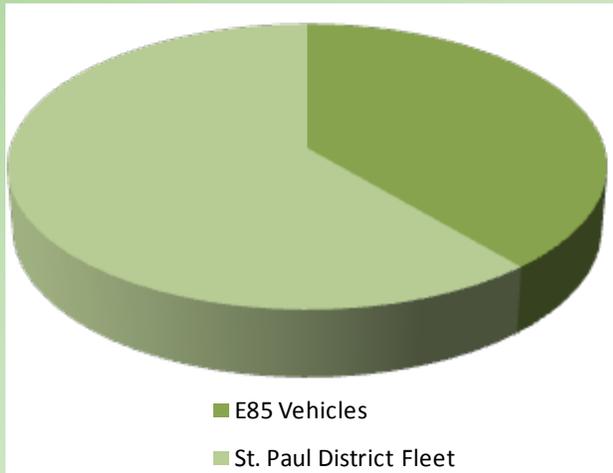
The district increased its E85 fuel consumption each year since Fiscal Year 2010. The district goal for Fiscal Year 2013 is 7,500 gallons. During Fiscal Year 2012, the district used 6,012 gallons of E85 fuel, or nearly 7.5 percent of the district's total fuel consumption.

the forefront this year, however, by doing things like checking out E85 vehicles first and inserting lists of E85 filling stations in the vehicle binders. "In June, when we realized we were number two in the Corps for usage, we got a little excited and decided we better aim for number one," he said. "We started telling people that we were checking out vehicles for this, and they were more than willing to help us

meet this goal. It ended up becoming an entire district effort."

In another effort aimed at making the district's GSA fleet more efficient and environmentally friendly, the logistics office hosted a vehicle utilization meeting in November to determine if any vehicles could be downsized, cut from the fleet entirely or moved around to ensure each vehicle reaches GSA required mileage

numbers. This relatively new group, made up mostly of section chiefs from around the district, meets at least annually, said McGarvey, to review the fleet. As a whole, this group has been very receptive to making greener decisions, he said.



The district has 52 vehicles, or 39 percent, that are E85 compatible within the entire fleet of 134 vehicles.



Where to find E85 fuel

District E85 vehicles are identified by a green label on the spine of the vehicle binders, as well as an E85 sticker on the inside of the driver's door. E85 filling stations can be located online via:

<http://www.afdc.energy.gov/locator/stations/>

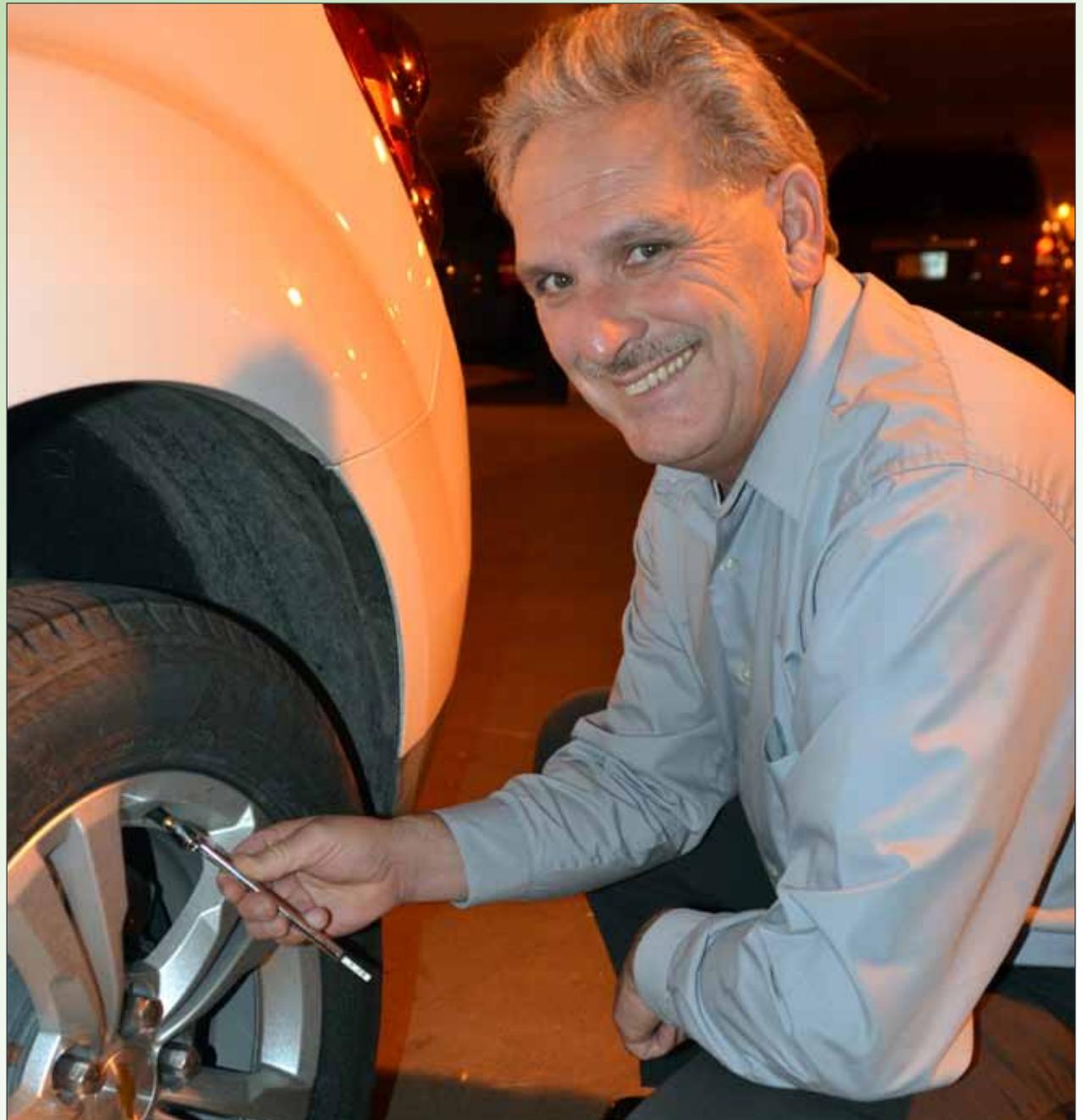


Photo by Patrick Moes

Duane Isle, district transportation manager, checks the tire pressure for one of the district vehicles. Nov. 19. Isle is responsible for managing more than 130 vehicles within the district.

Regulatory team uses investigative skills to determine if an area is a wetland

Story by Bianca Jones

On a plot of land in western Wisconsin this past summer, Dan Seemon, ecologist, and Greg Larson, senior ecologist and soil scientist, were in the middle of a crime scene investigation, or CSI.

They weren't looking at an actual crime scene; rather, they were investigating the land to determine if it was a wetland. Larson compares the visits, known as wetland delineations, to a CSI because he's always trying to look for clues to determine what happened. In determining whether an area is a wetland, Larson said, it's about the basics "I always tell people the first question you have to answer is 'is the site you're looking at a wetland?'"

Wetlands, though, can be difficult to identify. "There are many different kinds of wetlands. There are wetlands like sedge meadows, floodplain forests, wooded swamps, bogs and various other types," Larson said. "But that's one classification. Wetlands can be, depending on which classification system you use, characterized many different ways."

Seemon said regardless of the wetland type, the process starts out with a permit. "Usually someone calls us or someone is going to apply for a permit, and they've hired a consultant to come out and delineate their wetlands. They send us a letter [and] ask us if we can concur with the delineation."

Both Larson and Seemon said the primary tool used in their field investigations is the 1987 Corps of Engineers Wetland Delineation Manual and the appropriate regional supplement. The manual and supplement are part of the "nationwide effort to address regional wetland characteristics and improve the accuracy and efficiency of wetland delineation procedures," Seemon said. "The [manual helps us] determine if there are hydrophytic vegetation, hydric soils and wetland hydrology." He added that if these three characteristics are present, the area is usually a wetland.

The regulatory investigation process begins with looking at surface features, such as the "lay of the land" and vegetation. These steps are done before holes are dug to examine below-ground features, such as soil. Seemon said he wants to see if water is present at the site. He



Photo by Patrick Moes

Dan Seemon, ecologist, writes a note during a wetland delineation earlier this summer in western Wisconsin.

said he then looks at a reference site which hasn't been disturbed and compare the two to determine whether or not the area is a wetland. "A lot of times it can be very convoluted, and a lot of times it's not black and white. [There is a] lot of gray area involved."

The challenging part for most of the sites Larson and Seemon visit is that they are usually disturbed. "When we get involved with them, many times, there are natural or human interactions on the site," Larson said. "They've been dug up, filled, drained and there is no vegetation sometimes, so you need to reconstruct what was there."

Larson said examining reference sites helps him reconstruct the disturbed area. He said he uses soil and wetland maps, historical photos, soil borings and general observations to investigate the sites. "You basically connect the dots, and make a collective judgment with the team."

That collective judgment involves more than the Corps of Engineers. Seemon said he works with several state and local agencies, as well as consultants. "I think it's a partnership like a lot of things that the Corps is involved with," he said. "If we put our heads together along with the [departments of natural resources], too, we can come up with a consensus."



Photo by Patrick Moes

Greg Larson, left, senior ecologist and soil scientist, and Dan Seemon, ecologist, discuss wetland characteristics during a wetland delineation in western Wisconsin.



Photo by Patrick Moes

Greg Larson, senior ecologist and soil scientist, examines soil conditions during a wetland delineation in western Wisconsin.

Jutila serves as district's Red River expert

Story by Shannon Bauer

Tile drainage systems being installed and used by farmers became a hot topic in the Red River of the North river valley after record flooding occurred there in 2009. A number of letter writers to the *Fargo Forum* believed such systems exacerbated flooding, while a similar number wrote that these same systems could be used to prevent flooding.

“He has a wealth of expertise and institutional knowledge that we call upon for everything from flood fights to hydraulic modeling to trying to understand the big picture and history of activities in the basin.”

Mike Knoff, district hydraulics and hydrology section chief

The Red River Retention Authority, a group which includes watershed managers along this river from both Minnesota and North Dakota, initiated a study through the International Water Institute shortly after the 2009 flood to better understand these systems. A District hydraulic engineer, Scott Jutila, considered a Red River expert by many, participated in this study, the results of which were released earlier this summer.

“Scott [Jutila] is our ‘go to’ guy on the Red

River,” said Mike Knoff, chief of the district’s hydraulics and hydrology section. “He has a wealth of expertise and institutional knowledge that we call upon for everything from flood fights to hydraulic modeling to trying to understand the big picture and history of activities in the basin. Just as importantly, Scott’s knowledge and expertise are recognized and respected throughout the basin by elected officials, watershed managers, outside engineering firms and other agency professionals.”

Jutila started working in the Red River basin during his first week on the job 34 years ago as a student in the district’s water control section, when he was sent out to assist with the 1978 flood. Almost 20 years later, after

the 1997 flood, he became the district’s lead flood reconnaissance engineer and has spent much of his flood fighting time in the Red River basin. When he’s not fighting floods, he serves as the International Red River Board’s U.S. co-secretary and as a member of the Red River Retention Authority’s technical and scientific advisory committee. He also maintains the district’s water control website.

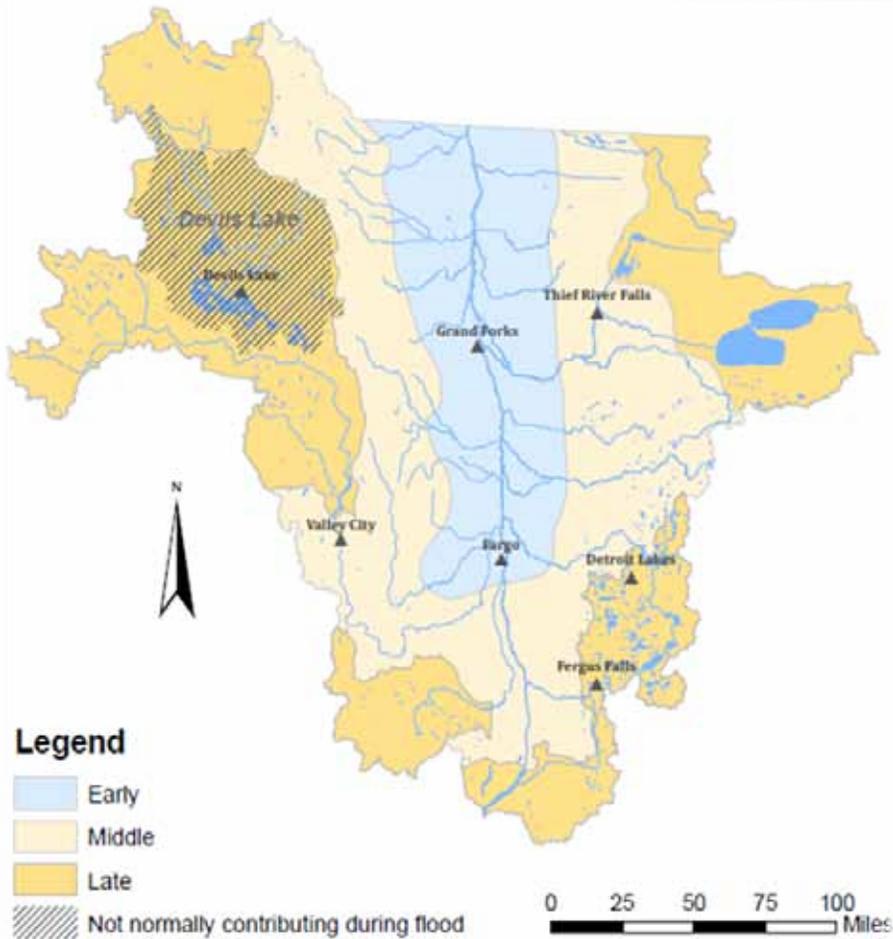
Jutila’s role in the tile drainage system study included serving as one of many technical advisors who read and interpreted data modeled and researched by scientists at the Universities of Minnesota and North Dakota and at the Minnesota Department of Natural Resources. Other technical advisors included representatives from the U.S. Geological Survey,

the Minnesota departments of agriculture and natural resources, the Minnesota Center for



Photo by Shannon Bauer

Scott Jutila, engineering and construction, is the district’s resident Red River of the North expert. He serves on the International Red River Board and the Red River Retention Authority.



The Red River of the North drainage basin is challenging because it includes three waves of flooding and the river runs north, which often means dealing with ice dams and cooler weather further downstream.

Environmental Advocacy, the Minnesota Red River Watershed Management Board, the North Dakota Natural Resources Conservation Service, the North Dakota Red River Joint Water Board, the North Dakota State Water Commission, the city of Fargo, North Dakota, and the city of Moorhead, Minn. Jutila said that having such a large and diverse group of

technical advisors resulted in the study taking two years rather than one, as it was difficult to get everyone to come to a consensus.

When asked what they found with their study and whether or not tile drainage systems cause or prevent flooding, he answered with a typical government response. “It depends,” he said. “It could make flooding worse; however, if properly

operated, tile drainage systems could reduce flooding.” This would be difficult to do, however, he explained, because there are thousands of these systems out there, all privately owned, and that farmers would want to open them when watershed managers would want them closed.

The report completed as part of the study offers a number of recommendations for watershed managers to mitigate the potentially negative effects of these systems, he explained. A few of the recommendations are highly controversial. Examples include requiring farmers to install outlet controls, implementing water storage trading, controlling the systems en masse rather than individually or limiting the amount of water farmers can drain per day.

Jutila said the study raised a number of questions that couldn’t be answered, and the group hopes to continue looking at this issue. More modeling needs to be done and additional issues, such as water quality, need to be addressed, he said. “I think it’s a big issue; and rather than just letting things happen, we have an opportunity to do something and make it better,” he said.

“And if there are things that can be done to prevent flooding in the Red River basin, I certainly want to be involved – to do what I can to make things better,” he said. “That’s why I started working for the Corps. I wanted to have some kind of impact and to provide some benefit to people.”

For more information on the **Red River Basin Authority**, see:

<http://www.redriverretentionauthority.net/>

For more information on the **Tile Drainage Study**, see:

<http://www.rrbdin.org/archives/649>

District looks toward certification process as way to provide more value, better customer service

Story by Bianca Jones

The Mississippi Valley Division is currently in the process of implementing a division-wide certification process, ISO 9001, that will affect the district in the near future.

The International Organization for Standardization, or ISO, is the world's largest developer of voluntary international standards. The standards provide guidance and tools for companies and organizations who want to ensure their products and services consistently meet customers' requirements, and that quality is consistently improved. According to the ISO website, the standard is based on a number of quality management principles including a strong customer focus, the motivation of top management, the process approach and continual improvement.

Executive Assistant Tom Sully said consistency is the ultimate goal.

"Having a standard set of processes across the division will reduce costs and benefit our regionalized team with certain objectives. The implementation phase will take about 2 to 3 years, but having a set of standards pays for itself," he said.

Environmental and Geographic Information Systems Branch Chief Terry Birkenstock said there are many benefits he can see from this process. "Over time, ISO certification will become the foundation for continuous process improvement, which I think is our ultimate goal. [It's] not to simply meet some metric, but to continuously improve the quality of our products.

"In our regional planning and environmental organization, we are already working at standardizing processes and it is not easy," Birkenstock continued. "ISO certification will help move that effort forward; and, in the long run, should make us more efficient and our customers more satisfied."

The Corps' quality management system, or QMS, will be one way ISO will be implemented throughout the district. The QMS is a SharePoint site where Corps employees can find documents on the structure, responsibilities and procedures that allow for effective quality management. The site is meant to provide knowledge to each organization, while allowing input from any Corps employee, said James Mosner, St. Paul District's quality manager.

According to the QMS website, the intent of the system is to ensure accountability and optimum investment of resources to seek customer satisfaction and mission execution. Implementing within the district will enhance operations in a variety of environments and provide our workforce with a tool to share best practices with one another.

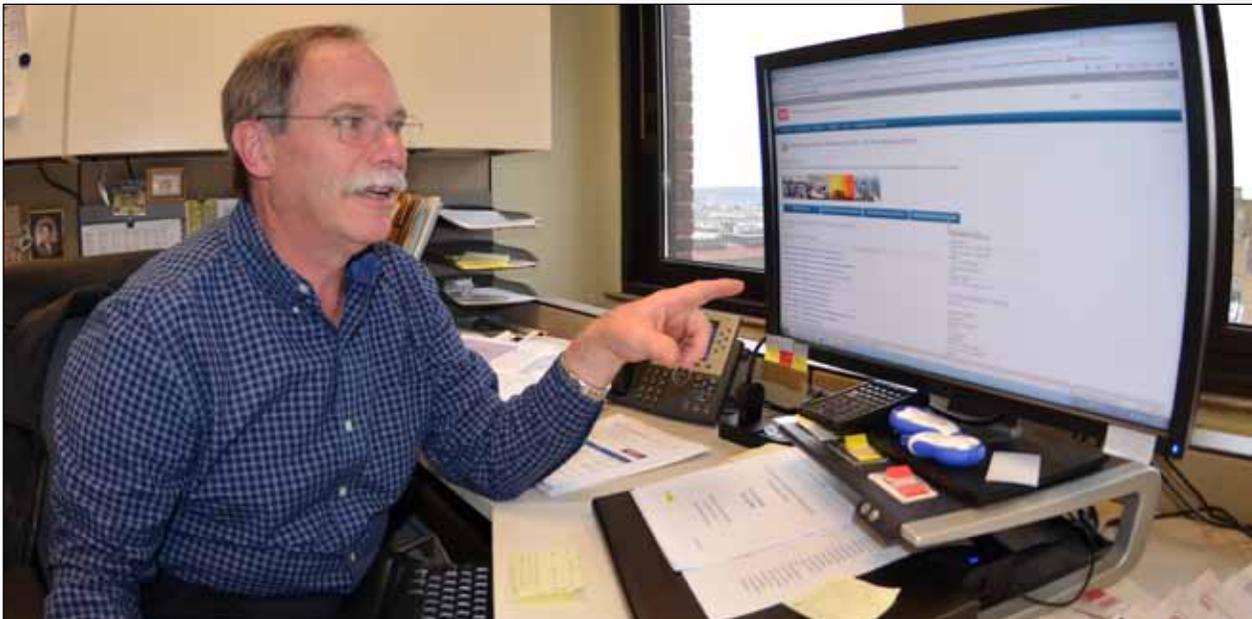


Photo by Bianca Jones

James Mosner, engineering and construction, is the district's quality manager.

Records retrieval has a long way to go

Story by Bianca Jones

The district currently holds its files in multiple Iron Mountain facilities in Minnesota, but that will be coming to an end at the end of Fiscal Year 2013, according to Stephanie Ehnstrom, district records manager.



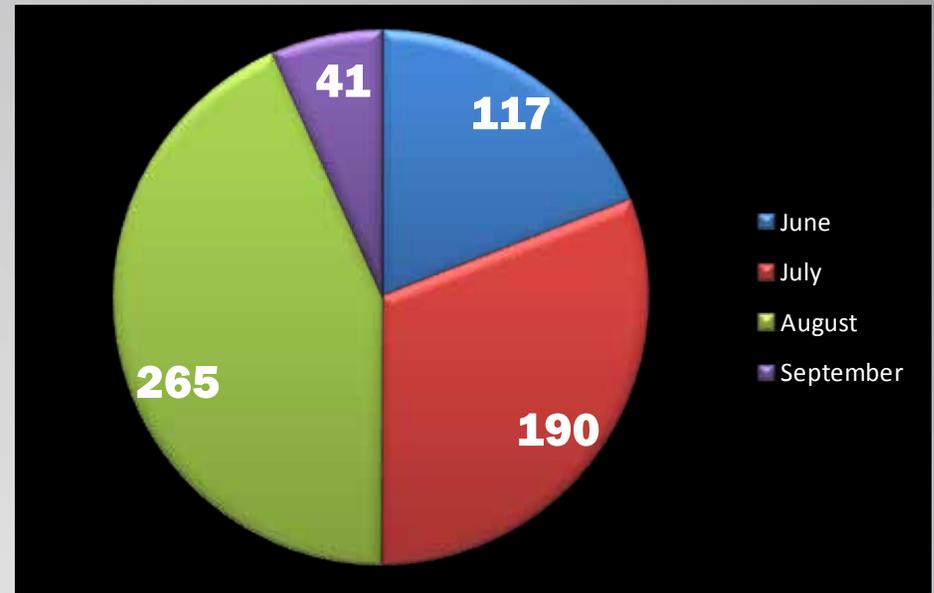
Photo by Bianca Jones

Julie Ritter, resource management, reviews some of the records that were recently returned from an Iron Mountain storage facility.

The Army Corps of Engineers – Information Technology, or ACE-IT, has provided off-site, short-term records storage through a contract with Iron Mountain since 2008. In late 2009, Corps Headquarters determined Iron Mountain facilities do not conform to Federal Records Center, or FRC, requirements for permanent storage. At that time, Headquarters provided guidance for both short- and long-term storage of Corps records.

Due to an upcoming contract expiration, Corps employees must recall all of the records stored in these facilities by September 2013. Ehnstrom said that the district has approximately 4,000 boxes that need to be retrieved. District staff retrieve all records, review them, discard all dispositional records that are beyond scheduled destruction dates and send legitimate permanent records to the FRC in Chicago.

The FRC in Chicago will store permanent records at no cost to the district; however, they will not take temporary records. Ehnstrom said most of the files at Iron Mountain are temporary



The total number of boxes recalled from Iron Mountain from June through September was 613. The district began the recall process with 5,402 boxes of information. There are now 3,535 boxes remaining as of Oct. 1.

in nature and can be shredded, but the files need to be reviewed before that can happen.

Julie Ritter, resource management administrative assistant, said the retrieval of records from Iron Mountain involves a lot of teamwork. “These boxes are heavy, so having someone help us out with bringing them down to the [district’s storage] is extremely helpful.” Ritter said going through each box can be tedious process, and having more than 300 boxes left is no easy task, but she’s thankful for her co-workers that lend her a hand whenever she needs it.

Editor's Note

Send your announcements of births, weddings, graduations, etc., to *Crosscurrents*. cemvp-pa@usace.army.mil.

Newcomers

Marlene Blevins, administrative assistant, programs and project management, district office.

Keith Davenport, lock and dam operator, operations, Lock and Dam 9, Lynxville, Wis.

John Derinzy, biologist, operations, La Crescent, Minn.

Daniel Reinartz, civil engineer, rehired annuitant, engineering and construction, district office.

Darold Sanderson, electrical engineer intern, engineering and construction, district office.

Melissa Schultz, cook, operations, Fountain City, Wis.

Ben Watson, security assistant, security and law enforcement, district office.

Retirements

Dave Nelson, civil engineer, engineering and construction, Grand Rapids, Minn.

Kevin Ressie, small craft operator, operations, Fountain City, Wis.

Rob Seeling, lock and dam operator, operations, Lock and Dam 5, Fountain City, Wis.

Taps

John Blackstone, passed away Nov. 20. Services were held Nov. 30 at the Unity Church Unitarian in St. Paul, Minn.

Gerry Cohen, passed away Oct. 29. Services were held Oct. 31 at the United Hebrew Brotherhood Cemetery Chapel in Richfield, Minn.

Combined Federal Campaign season begins

The district launched its annual Combined Federal Campaign, or CFC, at its headquarters in downtown St. Paul, Minn., Oct. 11.

The theme for the campaign this year is "Give a little. Help a lot." According to the CFC website, "CFC is the world's largest and most successful annual workplace charity campaign, with more than 200 CFC campaigns throughout the country and internationally to help to raise millions of dollars each year."

Employees in North Dakota and Clay County, Minnesota, interested in donating to an approved charity can visit www.cfcredrivervalley.org or contact Virginia Regorrah, engineering and construction and Red River Valley CFC local federal coordinating committee member, at virginia.m.regorrah@usace.army.mil.

Employees located in Minnesota, Wisconsin and Iowa that wish to donate money can contact Capt. Chris Ericson at christopher.t.ericson@usace.army.mil or visit the Northern Lights CFC website at: www.northernlightscfc.org to donate online.

Congratulations

Chanel (Kass) Mueller celebrated her marriage to Ryan John Mueller in Duluth, Minn., July 21.

Katie (Young) Opsahl, planning, celebrated her marriage to Dan Opsahl in St. Paul, Minn., Aug. 18.

Brett Palmberg, engineering and construction, married Hannah (Perrel) Palmberg in Edina, Minn., July 14.

Save the date

The 2012 Holidays Awards Ceremony and Luncheon is scheduled for Friday, Dec. 14 at the DoubleTree Hotel in downtown St. Paul, Minn. The cost is \$14 for a meal ticket and \$3 for a non-meal ticket. Event tickets will be on sale Nov. 26 to Dec. 10 and can be purchased from Roberta Just, Andrea Sterling, Janet Golubski and Cindy Hitchcock. Field site employees should contact Liz Nelsen to purchase tickets.