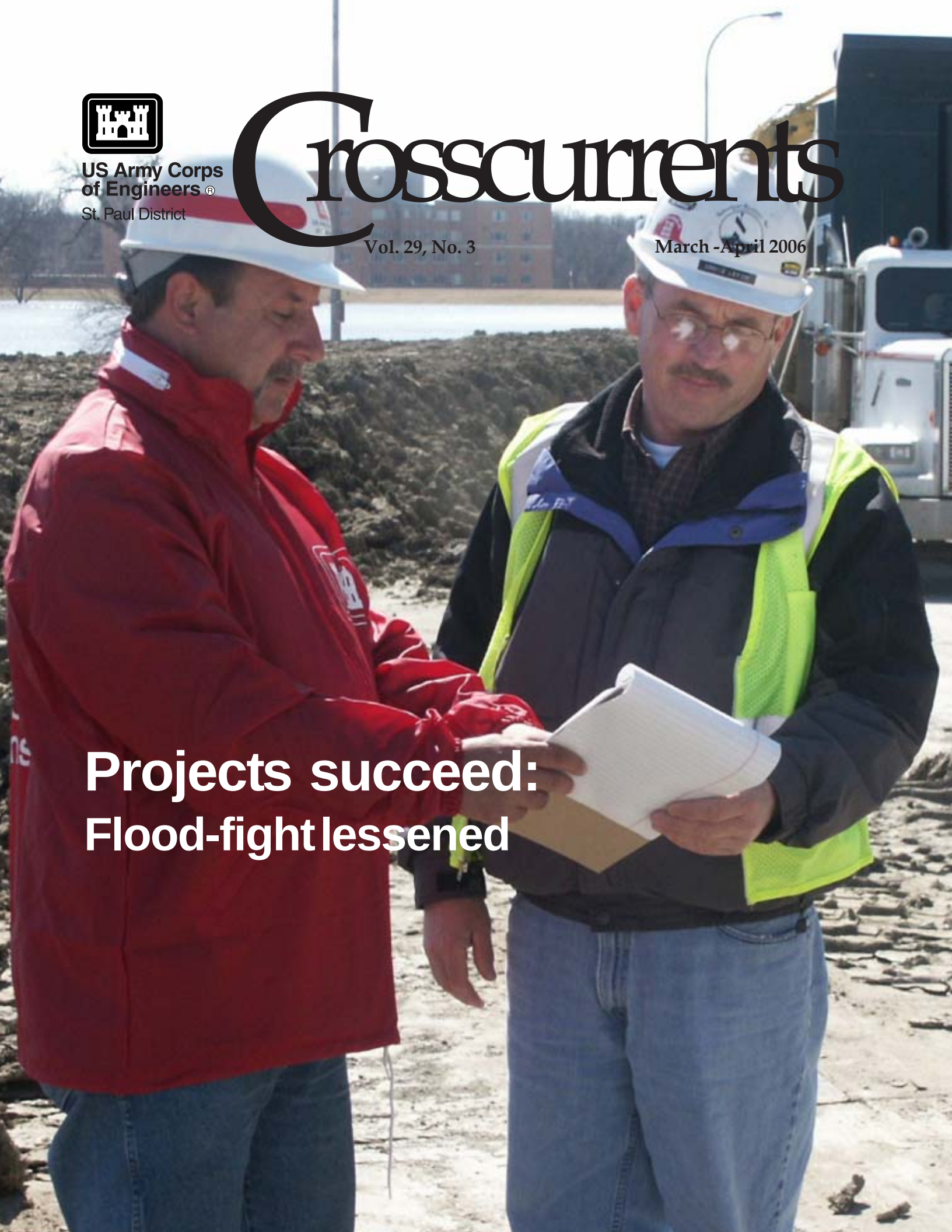

US Army Corps of Engineers ®
St. Paul District

Crosscurrents

Vol. 29, No. 3 March -April 2006

Projects succeed:
Flood-fight lessened

Red River flooding prepares district for coming challenges

by Col. MIchael Pfenning
St. Paul District commander

The last few days of March and the first two weeks of April saw a remarkable team effort on the part of you, the employees of the St. Paul District.

We successfully met the challenges of the flooding on the Red River of the North, from the Wahpeton and Breckenridge areas on the south end of the river all the way up to the Canadian border.

Pre-planning, coordination and communication with the stakeholders on the Red River of the North before the event was the key to this successful flood-fight. Our emergency management people in the district and out in the western areas were meeting with city, county and state officials from Minnesota and North Dakota as early as January. These pre-flood efforts paid off immensely in fighting this flood.

The efforts of the Corps' people, in the district and in the field during the flood made me proud to be your district commander. Your high-level professional and technical skills were never more evident to me than during this time.

And, the accolades from government officials and the "average guy on the street" sang the praises of the Corps in letters and e-mails we received plus positive media accounts of the Corps response.

I think this early flood-fight will get us ready for our next big challenge.

On April 17, Brig. Gen. Robert Crear, Mississippi River Valley Division commander, tasked St. Paul District with the responsibility of operating a recovery field office in Louisiana whenever it is next needed. Since immense planning was required in order to be properly prepared for this mission, the district jumped into this effort immediately. While this is a huge challenge for our district, I know it is one we are prepared to meet.

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St. Paul District

Crosscurrents

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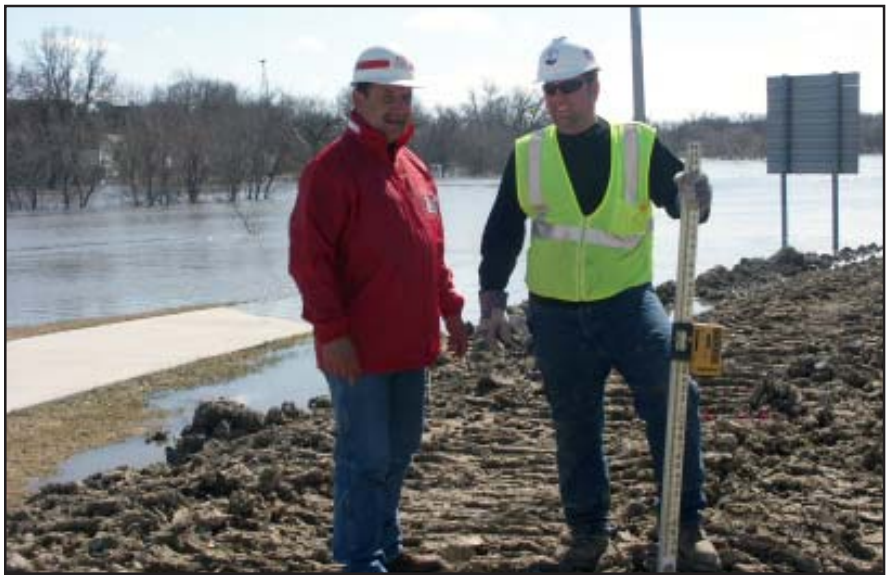
Cover photo

Photo by Mike Nelson

Pat Duffney, Pokegama Dam, Grand Rapids, Minn., left, discusses work on the 2nd Street South levee in Fargo, N.D., with Arnie Lefor, superintendent for Industrial Builders Inc., Fargo on April 3. The temporary levee protected Fargo against high water from the Red River of the North.

Projects, teamwork tame flooding on Red River of the North

By Peter Verstegen



St. Paul District photo

Pat Duffney (left), normally a park ranger at Pokegama Recreation Area in Grand Rapids, Minn., worked quality assurance during flood duty in Fargo, N.D. He is on a temporary levee with a Corps' contractor. They are setting the elevation of the levee on the Red River of the North in Fargo, April 3.

Relationships, responsiveness and recently completed permanent flood reduction projects paid big dividends for more than a half-dozen communities along the Red River of the North in Minnesota and North Dakota when flooding developed in April.

The monetary dividends generated about $200 million in damages prevented by permanent flood reduction projects and by emergency response efforts.

The relationships and responsiveness forged teamwork among federal, state and local emergency personnel and made the response to high water deceivingly routine.

"There are many great stories to be told this spring," said Terri Smith, incident manager for the State of Minnesota. "Some of my favorites are preparedness, mitigation and the teamwork of government at all levels."

Tim Bertschi, flood engineer at the Corps' Western Area Office in Fargo, N.D., said, "The high water was more of a routine event compared to past years. What surprised everyone, though, was how quickly the flood materialized and how quickly it went away. The main stem of the river went up and down fast in the metropolitan areas." The exception was an agricultural area by the Canadian border.

Corps of Engineers' emergency levees and existing flood reduction projects in Fargo prevented an estimated $50 million in damages during flooding on the river in early April, according to preliminary estimates by St. Paul District economists.

Praise for flood response

Emergency levees in the North Dakota communities of Drayton, Harwood and Lidgerwood prevented an estimated $4.1 million in damages.

But the Corps' work had benefits beyond preventing damages.

At Lidgerwood, Jodi Fust-Birnbaum, e-mailed Tim Grundhoffer, a subarea flood engineer, to say "This [flood] is

***Teamwork**, continued on Page 4*

- Corps' emergency levees in Fargo prevented an estimated $50 million in damages. The Corps' emergency levees in Drayton, Harwood and Lidgerwood prevented an estimated $4.1 million in damages.
- Corps economists estimated the Corps' emergency levees and permanent flood control projects, prevented approximately $150 million in damages at Grand Forks, N.D., and East Grand Forks, Minn.
- Corps' contractors built more than 15,000 linear feet of emergency levees using more than 55,000 cubic yards of fill. One cubic yard is roughly equivalent to a kitchen dishwasher. The Corps spent $760,000 on the contracts to build the emergency levees.

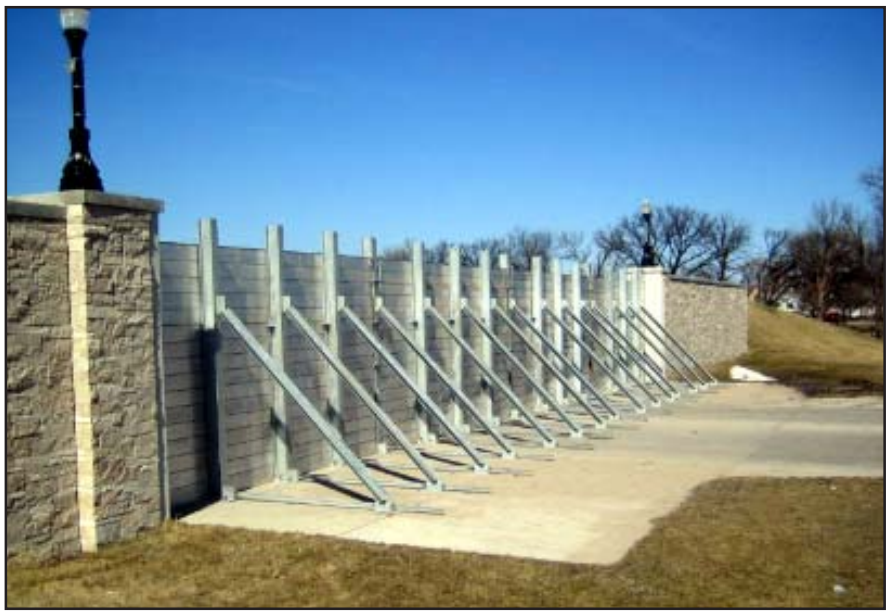
***Teamwork**, continued from Page 3*

something that the town had never dealt with before and you came in and handled everything in such a calm, cool, manner that made me feel as if everything was going to be just fine. I realize that you have worked on much larger projects than the one in Lidgerwood, but not once did you make the people feel like they were less important than any other area." Grundhoffer also responded to high water at Breckenridge, Minn.

Officials at Drayton called Bertschi to praise work by Lowell Hanson, Devils Lake, N.D., project office. "I received calls from both Carol Gardner, city auditor, and Becky Ault, Pembina County emergency management, complementing Hanson on his work in Drayton," said Bertschi.

At Grand Forks, N.D., and East Grand Forks, Minn., the district's economists estimated the Corps' emergency levees and recently completed permanent flood reduction projects prevented approximately $150 million in damages. Corps' contractors built more than 15,000 linear feet of emergency levees using more than 55,000 cubic yards of fill. One cubic yard is roughly equivalent to a kitchen dishwasher.

The Corps spent $760,000 on the contracts to build the emergency levees and distributed more than a half-million sandbags and nearly a dozen pumps to communities along the river and its tributaries. The Corps also distributed more than 11,000 feet of thick plastic to help prevent seepage through emergency levees.



St. Paul District photo

Above is the 4th Ave. Northwest road closure in East Grand Forks, Minn. To the left, on the wet side, are the Red River of the North and the Sherlock Park Campground. To the right, on the dry side, is the city's downtown area, including the public library and fire station. The area with trees is the Sherlock Forest Playground. The structure is part of the permanent flood reduction project at East Grand Forks. It helped protect the community against a crest on the river which reached the stage of 47.83 feet, April 5

Stored water cuts crest

Corps' reservoirs at Lake Traverse and Mud Lake – located five miles northwest of Wheaton, Minn., stored 89 thousand acre-feet, lowering the crest at Wahpeton, N.D., by one foot.

The Corps' reservoir at Orwell, located six miles southwest of Fergus Falls, Minn., stored enough water to take a quarter-foot off the crest at Wahpeton, N.D.

The Corps-built diversion channel at Breckenridge, Minn., across from Wahpeton, reduced the crest by 1.5 feet.

Corps' reservoirs, combined with the diversion channel, lowered the crest at Wahpeton and Breckenridge by about 2.75 feet.

Thirty six Corps' St. Paul District people participated in the 2006 Red River of the North flood-fight on scene. More provided indirect support behind the scenes.

At the conclusion of the flood-fight, Minnesota's Smith said, "Thank you for the daily conference calls, outstanding forecasting, products, meeting presentations and participation, consultations, patience and the good-natured confidence you share with so many."

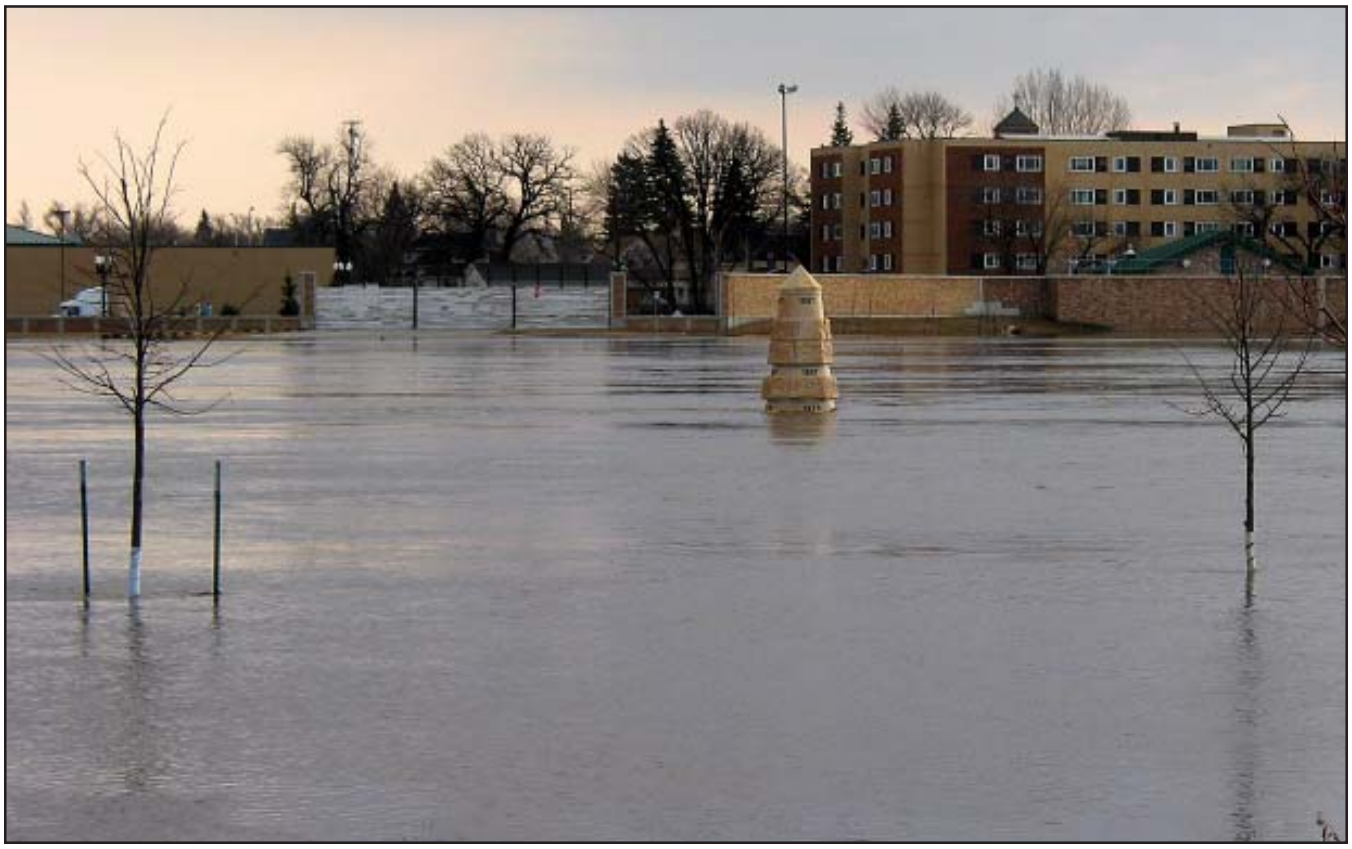


Photo by Jeff Kleinert

The Red River of the North surrounds the Obelisk at Grand Forks, N.D., at or near the 2006 crest with "1979" barely visible. On the far side of the river is the assembled South River Road closure on East Grand Forks, Minn., floodwall.

Grand Forks and East Grand Forks withstand the rising Red River of the North

by Virginia Regorrah
East Grand Forks Resident Office

In Grand Forks, N.D., and East Grand Forks, Minn., as the Red River rises and the city crews begin shutting pump station gates, activating pumps and closing the roads that cross the coulees and parallel the river, the average citizen monitors the floodwaters by the height of the water on the unofficial local gauges.

Local commuters between Grand Forks and East Grand Forks check the height of the water on the sole remaining pier of the Northern Pacific railroad bridge one hundred feet from the Sorlie Bridge, or note how close the water is to the obelisk, built as part of the federal flood control project under Grand Forks Phase 1.

Unofficially, the 2006 flood on the Red River peaked at 47.85 feet, with a flow of 71,900 cubic feet per second on April 6.

It is the sixth highest flood on record: 1882, 1897, 1979 and 1997 recorded higher crests. The flood of 1979 holds two of the top five slots, with peaks of 48.81 feet and 48.63 feet just three days apart. Another two inches and 4,000 cfs and this flood would have surpassed the 1882 event.

This year, the water kept rising. It didn't just lap at the foot of the obelisk, it climbed up the face of the obelisk until the inscribed dates for 1996 and 1882 were submerged. It reached the top concrete ring on the NPRR pier.

The rising Red River closed the Point Bridge and the

***Rising river**, continued Page 6*

***Rising river**, continued from Page 5*

Sorlie Bridge and all the bridges between Grand Forks and the Canadian border except for the Highway 2 Bridge in Grand Forks. Water poured across East Grand Forks' River Road, and city crews erected the road closures at 12th Street Northwest and 4th Street Northwest. Contractors working for the city built a clay dike across the northern end of River Road and the Sherlock Park Campground was inundated.

Grand Forks erected the road closure at Demers Avenue and since the floodwall modification contract in East Grand Forks is not complete, the contractor, IBI, Inc., erected the Demers Avenue and North and South River Road closures.

For the first time since its construction in 1998, the Demers Avenue road closure in East Grand Forks had water against it. At its peak, about one-and-a-half feet of water lapped at the Demers Avenue road closure.

Even with the sixth highest peak in history, and a river that rose 22 feet in just five days, the 2006 flood in Grand Forks and East Grand Forks attracted attention because of the ease with which it was handled. Both cities held flood-fight meetings, but they were almost routine in nature.

"Easiest flood-fight I've had," said Mark Kotrba, East Grand Forks public works department. "But, I like it this way."

In fact, the only difficulty the two cities had was with the spectators. People climbed levees and jumped the downtown floodwall to get a look at the Red River. Some even clambered out onto the Sorlie Bridge, despite the fact that the bridge's east end was under water. A few foolish souls waded through the water to cross from Grand Forks to East Grand Forks.

Photo by Jeff Kleinert

The Red River near its crest at the Demers Ave. road closure, East Grand Forks, Minn. Retail businesses are on the dry side of the wall.

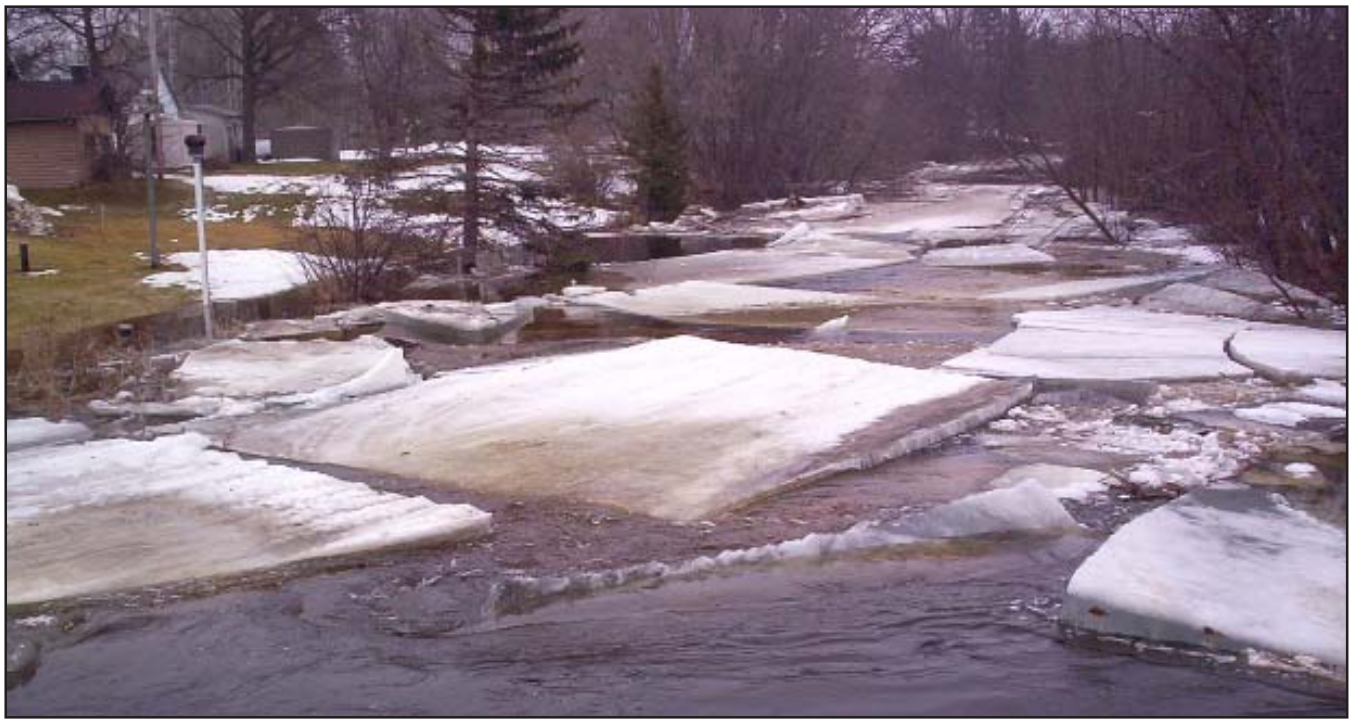
The 2006 flood was a milestone for these two communities. With the federal flood control project 85 percent complete and having weathered the sixth-highest flood in recorded history on the Red River, there is an increased confidence in the two cities. There is also an awareness that they've got to deal with the curiosity of local residents and visitors. The Red doesn't seem like as much of a threat now that they don't have to sandbag. On some days, the bank was lined with spectators; the police had to put on extra officers to watch the crowds of curiosity-seekers.

The city attorney for East Grand Forks summed up the flood-fight and the communities' reaction in an e-mail to the St. Paul District: "When the elevations of the two rivers that run through town started to rise, you could just feel the town come alive. The city was just crackling with energy. It's funny how a crisis will energize a community. Everyone was ready to start filling sandbags or throwing sandbags or attending all-night emergency meetings or doing something or anything to help fight a flood. But, guess what, there's nothing to do. The Corps' flood control project is working beautifully and the levees are holding and there's nothing to do. What a relief!

"This morning the river elevations are falling and people are starting to look at the 48 feet or so crest as a non-flood event. Forty-eight feet! I only have two words for the Corps and its employees. THANK YOU!"

Photo by Virginia Regorrah

Dave Zavoral, RJ Zavoral, Inc., and Francis Schanilec (right), Western Area Office, are standing on top of the emergency levee crossing river road, East Grand Forks, Minn.



St. Paul District photo

Ice jams clogged the Roseau River, a tributary of the Red River of the North.

Corps sprints past flood to assist Roseau

Corps huddles with city officials in late-night flood response

by Mark Davidson

It wasn't a typical weekend for a small number of Army Corps of Engineers employees, both in St. Paul and in northwestern Minnesota. They were coming to the rescue for the City of Roseau, Minn., in a very, very short period of time.

The state of Minnesota requested technical assistance from the Corps for Roseau, at 7 p.m., April 1. The National Weather Service had raised the crest of the Roseau River, located in the Red River of the North basin, to 19 feet.

One Corps' employee, Jay Bushy, a project engineer, was dispatched by vehicle from Grand Forks, N.D., and he arrived in Roseau at 10:30 p.m.

By that time the National Weather Service said the crest had risen to 20.3 feet.

Upon arrival, Bushy participated in an emergency meeting with the city officials. He called the Corps' emergency operations center in St. Paul at 11 p.m. and said the city had requested emergency levee construction assistance to raise portions of their levees and install levee closures to provide needed protection.

A signed cooperation agreement between the city and the Corps was received back in St. Paul at 11:45 p.m. and a verbal notice to proceed was issued to the contractor at 12:45 a.m.

The contractor began emergency levee work at 1 a.m. on Sunday, April 2 and completed it by at 1:30 p.m., April 2.

The contractor, under Corps' supervision, placed 1,250 cubic yards of dirt into three different areas, raising 750 linear feet of levees and filling in gaps and low areas providing the necessary level of protection.

And who said the Corps of Engineers was slow? Not April 1-2 in Roseau. Minn.

A family affair

Helmer "Bud" Johnson (top photo) came out of retirement to serve on Task Force Hope at the Louisiana Recovery Field Office, Baton Rouge. His son, Paul Johnson, is at the RFO doing quality assurance work.

Story and photos by Alice Welch
Louisiana Recovery Field Office

The U.S. Army Corps of Engineers is a unique and inspiring organization. It is comprised of dedicated men and women, civilian and military personnel who work very long hours under difficult conditions.

In the Johnson household, Saint Paul, Minn., it is also a family tradition. Helmer (Bud) Johnson worked as a civil/hydraulic engineer with the Saint Paul District. He retired in 1998 after more than 30 years of outstanding service. The Corps rehired Bud Johnson as a retired annuitant at the Louisiana Recovery Field Office, Baton Rouge, to help his Corps' family in Louisiana. He arrived in mid-February and was assigned as an office engineer working in Orleans Parish. His responsibilities include preparing scope of work and government estimates for various task orders or modifications, negotiating task order costs with contractors, assisting sector offices in paying estimate evaluations and providing additional engineering support as needed.

Bud is a six-foot-tall, white-haired, soft spoken man in his mid-sixties. He and his wife of 39 years have three children – Paul is the middle child.

Paul is tall, lanky and in his 30s. He has blue eyes, sandy blond hair and a quiet soft-spoken manner. Paul has been with the Corps since 1991 as a surveyor technician. He went to North Dakota State University and received his certification as a surveyor in the Corps. He did a tour with the Corps in Rock Island, Ill., for three years and then came home to Saint Paul, Minn., where he is currently assigned.

Paul has volunteered for several assignments in the Corps. He spent four months in Iraq as a quality assurance inspector on a power plant project and three months in Puerto Rico, also as a quality assurance inspector on a power plant project. Now, Paul is on another voluntary assignment in Lake Charles, La., helping to create a temporary housing complex for people who lost their homes in hurricane Rita. He is very proud of this particular project.

The Federal Emergency Management Agency leased approximately 80 acres of pasture; initiated a contract to have the land cleared, graded and have the main utility pipes for water, sewer and electric installed; and had feeder lines run to the 496 sites. Paul's responsibility as a quality assurance inspector includes monitoring the construction contract on this project. He ensures the contractor does the job according to specifications, within budget and on time. The project he's following should be completed by April 9, 2006, and will have taken less than three months. Paul is very happy that he could help bring some normalcy back to the lives of 496 families. Paul says the "Corps of Engineers is a good place to take pride in your work."

Bud is very proud of Paul and the work he does. "The four months Paul was in Iraq were a tense time for his mom and me," said Bud. He was not surprised Paul volunteered for Louisiana because that is just the type of man he is, according to his very proud father.

News and Notes

Photo by Jon Lyman

Col. Michael Pfenning, district commander, and Noeun Kol, design branch.

Kol honored as December Employee of the Month

Three co-workers, Jodi Dutta, Eric Wittine and Tony Fares, engineering and construction, nominated Noeun Kol for December Employee of the Month.

Kol works as a computer-aided drawing and design technician in design branch. "He consistently and dependably provides high-quality work and always does so with an upbeat attitude of cooperation and friendliness," said Jodi Dutta, design branch. "Because of his talent and dedication, many high-profile design projects have successfully been completed on time and within budget," said Dutta, who praised his behind-the-scenes contributions. Said Wittine, "He demonstrates a knack for taking sometimes unclear, hand-drawn design details and converts them into usable drawing format. There is no way we could ever be as efficient in our project delivery without having Noeun by our side."

Said Fares, "Noeun also performs excellent work of different tasks, such as structural inspection of bridges and structures. Since the nature of his work does not give him the exposure, except in his close circle where he is highly appreciated, I think his contribution and attitude deserve to be noted."

Photo by Jon Lyman

Col. Michael Pfenning, district commander, and Dale Brintnall, operations division.

Brintnall's acting, directing lift him to January Employee of the Month

The Awards Committee selected Dale Brintnall, or Dr. Darrell B. Trouble, as January Employee of the Month for his writing, acting and direction as chair of the Holiday Awards Committee.

"Brintnall provided excellent leadership, enthusiasm, and creativity," wrote his nominators. "He fostered an exceptional program." Brintnall works as a management support analyst in operations division.

Brintnall began by collecting all available information, good or bad, on past events. He visited and explored venues to host the event and cast individuals dedicated to the program and willing to work with him.

His enthusiasm at meetings was evident by his preparation of agendas, meeting minutes and his attention to details.

All committee members operated both informed and empowered.

Finally, Brintnall's creativity shined in his writing of a script and portrayal of Dr. Darrell B. Trouble presenting P2, [project management system software] and his promotions using clever word play on the names of prominent public figures to encourage purchasing tickets.

On the day of the Holiday Awards celebration, all committee members banded together with Brintnall to rehearse the production.

His efforts promoted teamwork and the holiday spirit, recognizing both current and past district employees. "All committee members stand in agreement that Brintnall served as an exceptional leader," said his nominators.

His nominators are Dave Christenson, readiness branch; Stephanie Dupey and Russell Williams, project management; Jon Lyman, information management; Joe Skupa, engineering and construction; and Marjorie Thompson, operations.

Corps walks thin ice on Lake Pepin

by Peter Verstegen

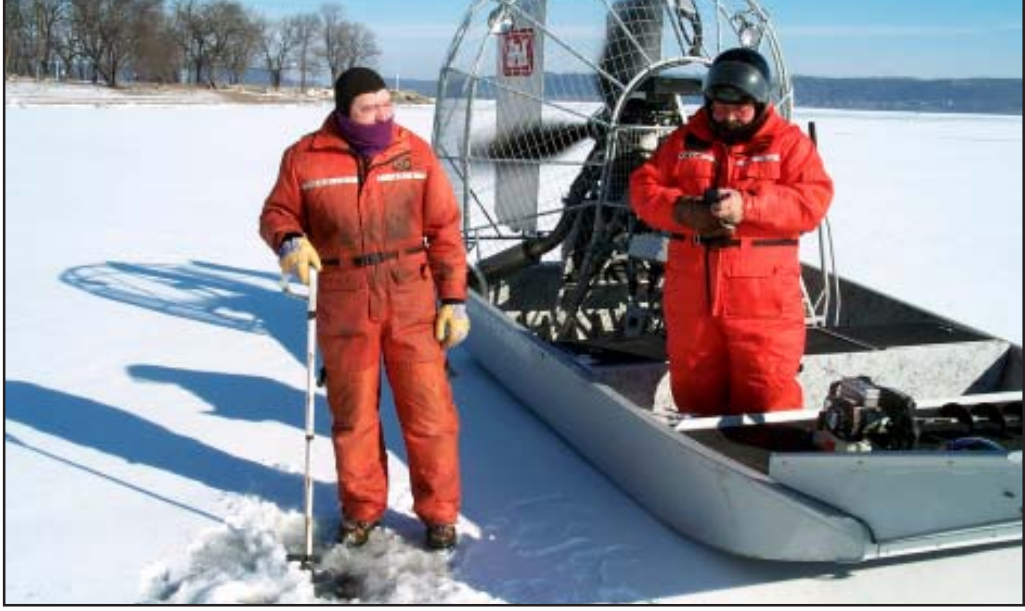
Lake Pepin ice was as thin as three inches this season.

The Corps of Engineers St. Paul District's survey crew in Fountain City, Wis., started this year's annual Lake Pepin ice measurements Feb. 14.

"Ice conditions are poor and the only cover is from river mile 766.5, south Lake City, Minn., with less than three inches, to about mile 779, up-river of Lake City," said Mark Upward, survey crew member. The crew went as far as mile 772.5 and stopped when the airboat broke through less than three inches of ice. "The thickest ice, at 13 inches, was at mile 771, but it was soft ice," said Upward.

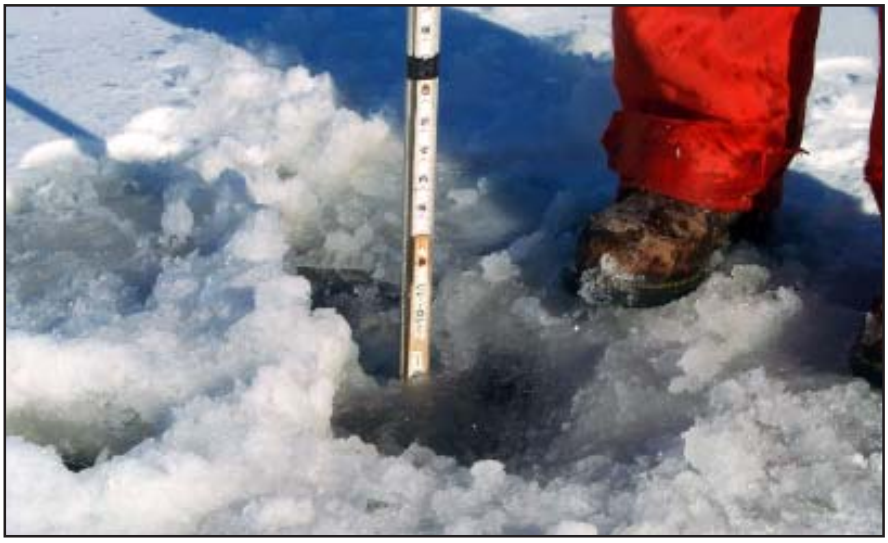
Lake Pepin is located on the Mississippi River between Red Wing and Wabasha, Minn. The district measures ice on the lake each year to predict the navigational outlook on the Upper Mississippi River. It is the location of choice for these measurements, because the lake is the last part of the river to break up, and the current is slower on Lake Pepin than on the rest of the river.

Each year, the survey crew uses an airboat and a portable global positioning system to measure ice. In addition to measuring the ice thickness, they also record the general condition of the ice. The towing industry finds the data useful to determine when it's safe to begin shipping cargo for the season.



Photos by Bill Meier

John Baures measures eight-inch thick ice on Lake Pepin at Mississippi River mile 780, Feb. 14. In the boat, Mark Upward marks the location with global positioning system. Both work with the channels and harbors unit, Fountain City, Wis. The high temperature up-river that day at Lock and Dam 4, in Alma, Wis., was 36 degrees, with lows in the 20s.



John Baures, channels and harbors unit, measures ice thickness at eight inches on Lake Pepin at river mile 780.

The average opening date of the navigation season in St. Paul for the last 10 years is March 20. For many of those who live in the Midwest, the first tow of the season is the unofficial countdown to spring.

"The Corps usually only does measurements until the ice is considered not to be an obstacle for tows," said Steve Tapp, acting operations manager, channels and harbors project. "That may be the case after only one measurement this year, because of the mild winter."

Normally, ice measurements are completed weekly until the navigation season begins.