



US Army Corps  
of Engineers®

St. Paul District

# Crosscurrents

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A black and white photograph of two men in white hard hats and safety vests. They are leaning over a table, looking at a set of blueprints. One man is pointing at a specific area on the blueprint with a pen. The other man is looking on attentively. The background is slightly blurred, focusing attention on the two men and their work.

**St. Cloud  
project protects  
Mississippi  
River**

# Public affairs is a team effort

By Mark Davidson

It's the beginning of the new year and your work "plate" is already overflowing. Aside from your regular job for the Corps – at a lock and dam, on the dredge, in one of our parks or at a reservoir, in the district headquarters, at a regulatory field office – you have Project Management Business Process training to get through after last year's CorpsPath.

You notice sometimes the Corps is bashed in the media, and you think that's unfair. You ask yourself, "What's that district public affairs office doing?" Well, we are doing more and more but it's a team effort. And no matter where

you are in the district, you are on the team.

Here are some things you can do as a district employee to support public affairs:

### Media relations:

1. PAO is always looking for ideas on stories we can market to the news media. There are many Corps' work projects and tasks that the public, through the news media, would find very interesting. Stories need to have a human angle, though, to be deemed newsworthy. Sometimes you think they are just the regular things you do daily, but the public might find them interesting because they don't do them or see them. One of the

“**Keep PAO informed as work is being accomplished so that PAO can market story ideas to the local media.**”

best way to tell the Corps' story is through people.

2. Locality and a story are very important. The Corps has some very important and costly projects outside of the Twin Cities area. Keep PAO informed as work is being accomplished so that PAO can market story ideas to the local media.

3. PAO can train you on how to work with the news media. Shannon Bauer, the PAO media specialist, has developed a PowerPoint briefing that can be administered all around the district.

4. Most of you are the subject-matter experts on Corps' work and projects. The media wants to get that information out of you to tell their viewers, listeners and readers.

PAO wants you to convey this information to the media, but we want to hear what you are going to say first. That's why you must never respond to the news media when they call, particularly if you have the time to get PAO involved first. And most of the time, you will, because the media will call you first.

PAO will want you to formulate in your mind, or on paper, the main three points you want to get across to the media about the issue at hand. PAO will offer insights into similar requests from the media. Then, you can call the media back and answer their questions.

### Command information:

1. This includes many of the same issues as in media relations – you have to tell PAO what is going on so we can inform other district employees to know what's interesting going on out there.

2. Photos are very important for publications like *Crosscurrents* and *Engineer Update*. Try to get close to the people being photographed. When you think you've taken a good shot, take another step closer. Capture both eyes of a co-worker in the photo (no backs), and try to make it an action shot.

### Community relations:

1. Aside from speeches to local groups and tours at the parks and locks and dams, try to think out of the box on this in 2003. At the district headquarters, contact PAO and get involved with the Adopt-A-School program.

2. Most of the field sites already get involved in the local community in some way but consider having a food drive, paint-a-thon or river clean-up with other federal and state agencies in the area.



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St. Paul District

## Crosscurrents

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## Bits and Pieces



Photo by Peter Versteegen

In remarks for Diversity Appreciation Day on Dec. 12, Col. Robert Ball, district commander, held a core of concrete to illustrate how a diversity of ingredients makes a stronger whole.

### Diversity Day highlights character

Dr. William Powell spoke to "Character Matters: Strengthening Character Through Diversity," in the keynote speech for Diversity Appreciation Day at the St. Paul District office Dec. 12. Powell's keynote came in a morning presentation to more than 100 diversity day participants. He discussed character-based leadership in an afternoon briefing

for managers.

Marianne Price, equal employment opportunity office chief, was master of ceremonies and introduced Powell. Col. Robert Ball, district commander, used the analogy of concrete mix to illustrate how a diversity of ingredients makes a stronger whole.

An ethnic food taste in each lunch room featuring food from different continents followed. Theater at Work accented diversity with the play, "Your Face Here," at the J.J. Hill Theater.

### Hmong celebrate New Year in St. Paul



Photo by Pang Yang

Mee Yang (above), a student worker in public affairs, celebrated the Hmong New Year in St. Paul, Minn., Nov. 29-31. She wore her

Hmong traditional formal wear as part of the celebration with Hmong from California, North Carolina, Wisconsin, Michigan, North Dakota, South Dakota and a large contingent from Minnesota.

"The New Year celebration offers Hmong an opportunity for getting together and starting the New Year with new and old friends and families," said Yang.

"It's a time for meeting new people, tasting traditional food, learning something new from our background and dressing up in traditional clothes."

The celebration also included a beauty pageant, talent show, a vendors' market, ball toss, taking portraits and food.

### Promotions

**Mary Chang** was selected for the temporary position of GS-13 Chief, information management systems operations branch.

In project management division, **Bonnie Greenleaf** was selected as the GS-13 project manager for the Grand Forks-East Grand Forks project and **Paul Kosterman** was selected as the GS-13 operations and maintenance project manager.

**Steven Adamski**, office of counsel, has been selected as the new GS-14 deputy district counsel.

### Wanted: Your news!

PAO seeks information about special events in your life (e.g., births, deaths, marriages, engagements). If you would like to share these items, please contact Public Affairs at 651-290-5202, -5108 or 5201 or send an e-mail to: [cemvp-pa@mvp02.usace.army.mil](mailto:cemvp-pa@mvp02.usace.army.mil).

## Jim Greene retires

Nearly 80 attended a retirement party Dec. 18 for Jim Greene, lockmaster at Lock and Dam 8, in Genoa, Wis. He started his career with the district in August 1973 at Lock and Dam 9, Lynxville, Wis. He retires Jan. 3, 2003.

## Homme begins rehab

At Homme Lake, near Park River, N.D., the Corps has undertaken a major dam safety rehabilitation project that will cost \$12.3 million with an expected completion in May 2003.

At Lake Ashtabula, near Valley

City, the Corps has implemented a \$9.7 million five-foot pool raise project and developed 34 miles of the North Country National Scenic Trail on project lands. Personnel also installed two Americans with Disabilities Act-compliant fishing piers in the recreation areas.

## Flood recovery puts families in homes before winter

Early this summer, 19 counties in northern Minnesota experienced severe flooding. The Federal Emergency Management Agency provided disaster housing grants and requested the assistance of the St. Paul District to provide temporary housing in Roseau, Minn., and the surrounding area.

The mission required the construction of a 69 pad mobile home development site and purchase and installation of manufactured homes.

The St. Paul District issued a contract for construction of the mobile home site to Spruce Valley Corporation, a small, woman-owned, HUB Zone business in the local area.

The district also issued a contract for manufactured homes from the Homark Company, a small, 8(a) firm, from the area. The contractors were under time constraints because winter comes early to that part of Minnesota.

Both contractors were from the local area and the dollars provided a much needed boost to the local economy including a recall of workers who had been laid off due to the flooding.

*From information provided by Tom Koopmeiners, deputy for small business.*

## Hauck honored as Employee of the Month



Photo by Mark Davidson

Col. Robert Ball and Rick Hauck

Among the critical ingredients in the planning and response team's success with housing in northern Minnesota were the humor, energy, accuracy and persistence brought by **Rick Hauck**, the October Employee of the Month, to the emergency operations flood response.

Hauck worked as the database manager for the planning and response team that provided emergency housing following the 2002 floods in northern Minnesota.

Each day, the staff in the field and in the Emergency Operations Center relied on him to gather the information for the situation report and prepare that report. "He was diligent and painstakingly accurate in carrying out this task," said Bob Silvagni, readiness branch, who was primary nominator. "No matter how busy he was in doing his assigned tasks, he would find the time to make sure every deployed person had lodging, a rental car, equipment such as a cell phone, prior to departing the district. He also would call and check and make sure folks arrived and that they were properly situated."

Hauck persisted through four weeks of 12-hour days and was prepared to remain late in the EOC to compile the situation reports and complete other duties as assigned.

His team spirit went beyond just "doing a job," said Silvagni. "He took on the role of cheerleader for the team, continually praising the work of the other team members."

When emergency personnel became stressed, Hauck reduced the stress level by telling a joke or laughing at the craziness of the situation. "His smile and great humor often provided a bridge over raging madness of ongoing operations," said Silvagni.

*Henrik Strandkov, construction-operations, also contributed to the nomination.*

## Project keeps sewage out of Mississippi River

By Shannon Bauer

The U.S. Army Corps of Engineers, St. Paul District, recently completed an emergency streambank protection project in St. Cloud, Minn., in record time.

The need to protect the riverbank was immediate, as a major sewer line was about to erode into the Mississippi River, according to Stu Dobberpuhl, hydraulic engineer. From planning and design to construction, the project took eight months.

"This is one of the fastest projects you'll see happen at the Corps, with the exception of flood fighting, of course," said Dobberpuhl. "Nobody wants to be responsible for 2.5 million gallons of sewage flowing into the river."

The Section 14 project, located near the Highway 23 De Soto Bridge, included clearing 1,200 linear feet of the bank and placing around 30,000 tons of rock fill to an elevation of 989 main sea level, which corresponds to an anticipated 100-year flood elevation. The project cost around \$1.5 million, with the Corps paying 65 percent and the city paying the rest.

The rock fill was designed not only to control the erosion but also to provide an enhanced habitat for fish and other aquatic life forms.

Construction took a little more than two months and involved building an access road down a steep embankment of more than 50 feet. Corps people first investigating the site needed to use a rope to traverse the steep embankment.

And while building the access road, the contractors had to relocate



Photos by Shannon Bauer

**Roland Hamborg (left), project manager, and Mark Koenig, construction branch, discuss site conditions along the Mississippi River at St. Cloud, Minn. Koenig participated as part of the project delivery team.**

a storm sewer line. Corps' construction manager Dave Nelson said it needed to be moved to the gradient of the access road, which took time out of the construction schedule.

"We still finished the contract on time, though," he said. "Once they moved the sewer line, things really got moving."

Project manager Roland Hamborg said, "It's pretty neat to think this started out as just a site visit in May, and now you can go out there and walk on it. It gives you a real sense of accomplishment. I think the whole team feels that way. This has

really been a team effort.

"I told my son that long after I'm gone, he can take his kids to this spot and tell them their grandpa was in charge of that project," he continued. "My son said, 'But dad, it's just a pile of rocks, isn't it?'"

**Cover: Mike Dahlquist (left) and Jim Sentsz look at survey information for the St. Cloud project. Sentsz worked as cost estimator for the project. Dahlquist was section chief reviewing the work. They worked in the construction office in a staging area at the top of the bank.**

# English Coulee project adds channel capacity to divert flood waters around Grand Forks

By Mark Krenelka

After a tame stream turned into a torrent that flooded businesses and homes in 1997, the city of Grand Forks, N.D., asked the Corps's St. Paul District for a way to move that water away from the city.

Along with other flood mitigation efforts, the city asked the district to design and build a diversion channel that would redirect water from the entire English Coulee watershed, plus handle much higher flow rates.

The district awarded a \$15 million contract in January 2002 to achieve this objective. The culmination of this request is the English Coulee Diversion Project.

The English Coulee meanders lazily through the west side of Grand Forks, flowing through neighborhoods, past businesses and bisecting the University of North Dakota before it empties into the Red River, just north of the city.

Many people have said they feel fortunate to have this picturesque creek as the backdrop for their home or business.

However, the spring thaw and the subsequent melting snow transform this peaceful little creek into a torrent that flows out beyond its banks and causes flooding problems for residents and the city alike.

The city took corrective action long ago by constructing five miles of drainage channel along the northwest edge of the city. Potential flood waters from a portion of the English Coulee watershed enter this channel, which the channel diverts around the city, before passing over three small drop structures and

eventually spilling into the Red River.

Unfortunately, the excessive snowfall and spring thaw of 1997 contributed more water than this channel could handle, causing flooding problems on the west side of Grand Forks. Those on the east side had their own problems, dealing with flooding from the Red River itself.

## Small business benefits

Gowan Construction of Oslo, Minn., successfully bid on the contract. Of particular note is that this is the largest HUB Zone contract ever awarded by the St. Paul District. HUB Zone is an acronym for Historically Underutilized Business Zone. The Small Business Administration web

site says the program is designed to stimulate economic development and create jobs in urban and rural communities by providing federal contracting preferences to small businesses. These preferences go to small businesses that obtain HUBZone certification in part by employing staff who live in a HUBZone. The company must also maintain a principal office in one of these specially designated areas.

Work is now well under way to widen the existing channel, plus add four miles of new channel to the south. The new channel will direct flows to the north, where it will tie into the existing diversion.

As the contractor widens the channel, levees are being constructed which form the slopes of the new channel.



Photo by Lanny Cyr

**Mark Krenelka, construction representative, stands in the box culvert on Columbia Road, Grand Forks, N.D. The four cells, each measuring 15 feet wide by 15 feet high, make it the largest box culvert produced in North Dakota. Rocks each side of the culvert reduce erosion.**



St. Paul District photo

**Jay Bushy, project engineer, shows the new drop structure number one to a field trip group from a local school. Drop structures reduce erosion by dissipating hydraulic energy before the water flows into the Red River.**

### Road construction

Road construction is another major phase of the project. The installation of nine new structures will allow the new channel to pass under major streets and highways. Each structure consists of a series of pre-cast concrete box culverts that are joined together to span the roadway.

Traffic on streets and highways was rerouted, while old bridges or existing culverts were demolished and the new larger box culverts installed. These roads also had to be raised to accommodate these impressive structures.

After installation of the box culverts and drop structures, the channel is shaped to maximize capacity. Stone was placed to provide erosion protection. The project calls for some 38,000 tons of riprap, which is placed both upstream and downstream of the new structures.

One and a half miles of road on 55<sup>th</sup> Street and one mile of road on 40<sup>th</sup> Avenue North were removed; the roads relocated and raised to accommodate a wider and changed

channel alignment.

While lengthening and widening of the diversion channel is one project objective, a second is a comprehensive drainage plan designed to take runoff from the English Coulee watershed and direct it into the channel instead of the city. Besides building levees along the new channel alignment, the contractor is also digging more than 10 miles of drainage ditches that feed water into the channel via 47 new reinforced concrete culverts. The bigger culverts can handle more water than the corrugated metal pipes they replace.

Gatewells containing sluice gates are being constructed for larger culverts to provide back-up protection. The sluice gates can be closed to prevent flooding of the protected area should the primary flap gate fail.

### Drop structures diffuse hydraulic energy

Down by the river, the old drop structures have been demolished to make way for redesigned and significantly larger drop structures.

The purpose of the drop structures is to reduce erosion by dissipating hydraulic energy before the water dumps into the Red River.

The three structures reduce erosion by slowing the flow of water from the diversion channel before it enters into the Red River of the North.

Each of three structures, designed for 3,400 cubic feet per second, is anchored by 81 H-piles driven to a depth of 110 feet. For comparison, the Mississippi River flow through Lock and Dam 2 in Hastings, Minn., was 8,000 cfs on Dec. 16, 2002.

On top of the H-piles sits 500 yards of concrete embedded with 95,000 pounds of reinforcing steel. An H-pile is a structural steel beam that is shaped like the letter H. H-beams are commonly used in construction of large-building frames.

In construction of new drop structures, one 60-foot long beam is driven 56 feet into the ground. A second 60-foot beam is welded to it. The beam is driven into the ground until it reaches the depth shown on the plans or until it will not go any deeper (known as refusal). The excess beam is then cut off and hooks are welded on. When the concrete is poured, the H-piles anchor the structure against the force of the water.

The weather challenged construction with summer floods. Heavy rains caused the Red River to rise dramatically and flood the contractor work area in June. More rain halted work with overland flooding in July.

The coulee project is designed handle a 100-year event with three feet of freeboard for residents on the west side of Grand Forks.



Photo by Bob Dempsey

Jodi Dutta, above, builds bridges with spaghetti and marshmallows for seventh grade students in an industrial technology class at Washington Middle School in St. Paul, Minn. Dutta and Bob Dempsey, engineering division, used the pasta to show hands-on engineering to three classes Nov. 26-27.

## Spaghetti and marshmallows build class act

By Peter Verstegen

Two engineers from the St. Paul District transformed strands of spaghetti into bridge supports for seventh-grade students in St. Paul, Minn., Nov. 26-27.

Jodi Dutta and Robert Dempsey, engineering division, made presentations on engineering and provided a hands-on learning experience for Mr. David Gundale's industrial technology students at Washington Technology Magnet School.

"We tried to keep discussions flowing between Corps presenters in a trade-off style that didn't result in the class having to listen to one presenter for more than a couple minutes," said Dempsey. "We also made it a point to ask a variety of questions to students along the way to see if they knew of Corps projects or recent Mississippi River news to keep them engaged in the presentation."

The St. Paul District entered into an educational and mentoring partnership with the St. Paul Public School District's Washington School last December. This presentation is part of the Corps' ongoing, monthly

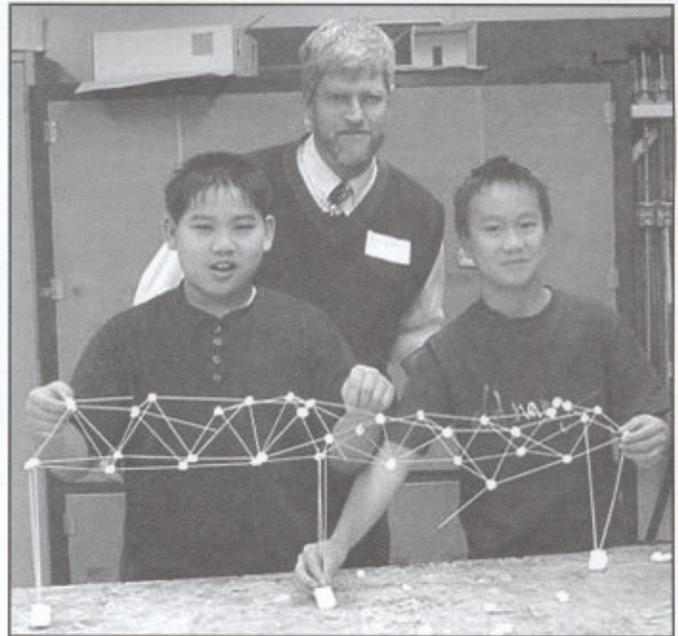


Photo by Jodi Dutta

"The lab exercise was to have the students combine straight spaghetti pasta and mini-marshmallows to form a truss bridge or other structure on the lab tables in back of the classroom," said Bob Dempsey, engineering division. Dempsey is pictured with students in an industrial technology class at Washington Middle School in St. Paul.

efforts to assist Washington teachers in the areas of math, science, life science and environmental studies.

"The majority of students plugged right into the exercise rather quickly and some of the "projects" were pretty impressive for a 20-minute effort," said Dempsey.

"Nobody ate the marshmallows, and the students enjoyed the hands-on experience," said Dutta. "Playing with the spaghetti and marshmallows taught more than any words could."

### Keep flying safe and secure

On December 2, 2002, the Transportation Security Agency (TSA) implemented a national toll-free hotline that the general aviation (GA) community can use to report any "out-of-the-ordinary" event or activity at general aviation airports. The hotline is operated by the National Response Center and centralizes reporting to the appropriate local, state and federal agencies.

Please report any suspicious activity at an airport to (866) GA SECURE or (866) 427-3287.