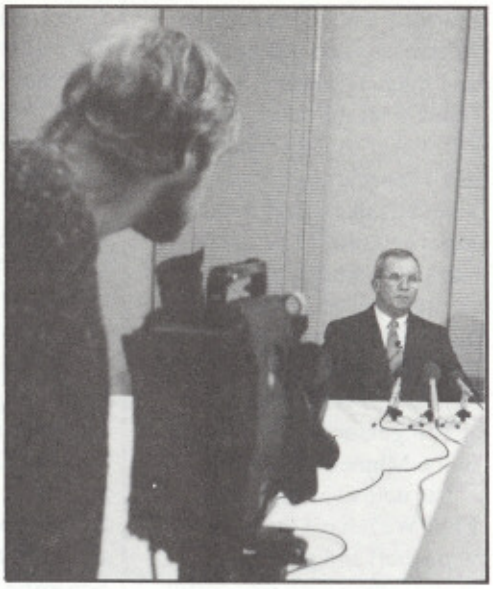
Crosscurrents

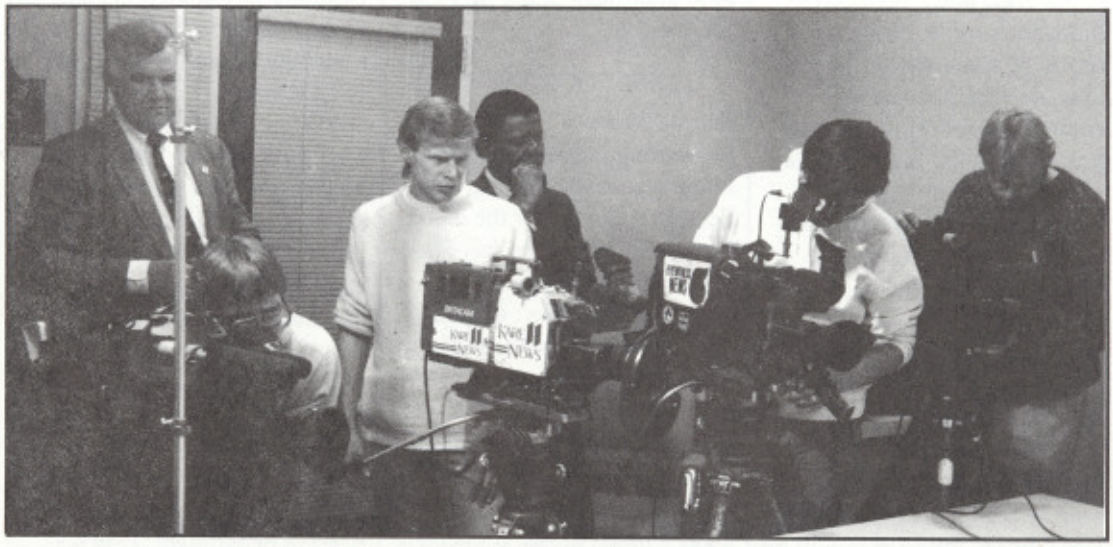
US Army Corps
of Engineers
St. Paul District

"Largest district in the North Central Division"

Vol. 14 No. 4 April 1991



Headwaters Manager Jim Ruyak left for TDY in Kuwait amidst a flurry of media interest. After a press conference, he was filmed all the way to the secured area. Jim has since been featured in a local television spot on the Corps' ongoing cleanup and damage estimate work . His three month tour may be extended due to the amount of work to be done.



Index

Bits and Pieces

UPCOMING EVENTS
1991 Awards Ceremony/ Picnic Date and Place Set!
This year's annual picnic and awards ceremony promises to be unique, fun and quite memorable. The reason for this may just be the location. Where else can you get lions and tigers and bears, oh my! (other than the ones you work with) next to rather more gentle species (such as yourself) like giraffes, antelopes and otters? With camel rides and coral reefs and a skytrail and an indoor tropical garden? And cuddley creatures like koala bears and boa constrictors to get friendly with?

You guessed it! We're going to the Minnesota Zoo!

The date is Friday, June 21st. We'll have the classic volleyball and golf tournaments, along with wonderful picnic food and award ceremony, of course, for the most recent winners (better be good now, so your number will come up in June!), along with a zoo scavenger hunt for kids and parents to do together. It'll be great, so mark the date and don't be late! (rudimentary rapping ... really ridiculous)

Student Recognition Week
The week of May 13-17 is when the District will celebrate the accomplishments and contributions of its student worker population. Nominations for the top awards will be solicited from supervisors, after which an Ad Hoc Committee will review and make the final selections.

Two workshops specially designed for students will be held, along with an awards ceremony. Details to follow.

Savings Bond Drive
The annual bond drive will be held this year from May 1-31, led by the Personnel Office. Watch for upcoming details.

Corps Bowling Tourney
This editor had to chuckle at the team names in the Corps' 1990 worldwide bowling tournament, recently ended... "Big Balls", "Hot and Spicy" the "Hard Corps"? (What kind of competition is this?) I did like "Who's Ever Here", "Here Fer Bier" and "Why Not".

The St. Paul District's team had the right name, too; that, and a big enough score to win the Class A championship spot. Congratulations, **Stan Kumpula, Bill Vennemann, Greg Eggers, Neil Schwanz** and **Bob Dempsey**! And their name... the St. Paul Strikers!

People News
Something rare has happened in the Accounts Payable Section... except for the chief, **Carol Opdahl**...they have had 100% turnover! Thank goodness Carol isn't quite as new as her staff or the bills would never have been paid. She has been working lots of overtime to get the new people trained in and wanted to apologize for any occasional short temperedness. It's been rough. It should be better now though, with all these new and capable people working there: **George McAlister III** (accounting technician), **Brenda Keiser** (voucher examiner), **Carol Olson** (voucher examiner), **David Koepsell** (accounting intern), **William McCarthy** (voucher examiner), **Ted Anderson** (voucher examiner) and **Jennifer Lorenz** (co-op student).

There are two new employees in IM: **Jeffry Bailey**, a computer programmer analyst, and **Jon Lyman**, a visual information specialist.

Rejoining the Corps's personnel office following a four year absence is **Linda Krueger**, then and now a personnel staffing specialist. Linda will be doing extensive outreach recruiting to increase the number of well qualified minority, women and disabled applicants for District positions. Emphasis will be on positions and groups for which the District Affirmative Action Plan shows that underrepresentation exists.

The selection has been made for the chief of Public Use Planning Section in Planning Division. It is landscape architect **Carol Nelson**, replacing **Bruce Heide**, now of LCPM.

The employee selected for long term training from Engineering Division has been selected as well. Beginning in fall of 1991, hydraulic engineer **Lisa Hedin** will start her master's program at the University of Minnesota. Lisa will be studying ground water chemistry and contaminant transport (layperson's terms: hazardous and toxic waste problems) in the civil engineering department. Lisa was one of 21 employees selected nationwide to enter the mission-related graduate program. Congratulations!

Steve Adamski's name has been entered into the Outstanding Employee with a Disability Award nominations. Steve was the nomination from St. Paul District, made the NCD "cut" and now moves forward to the HQUSACE level. Good luck, Steve!

The Civil Servants of the Year for 1990 have been announced: **Mary Schommer**, a study manager in Small Projects Branch , **Chuck Crist**, assistant chief of Planning Division, **Norm Hildrum**, chief of Information Management and **Natalie Siok**, an office manager for Eastern Area Construction Office. A full story will follow in May *Crosscurrents*.

Chuck Crist has been selected as chief of Projects Managment Branch in the Projects and Programs Management Division. Chuck thus vacates the assistant chief of Planning Division position.

Several new lockmasters have been selected: **Ronald Fetting** at Lock and Dam #5A, replacing **Red Farrand** who recently retired; **Terry Jessessky** replaced retiree **Bill McDonald** at Lock and Dam #7; and **Jim Greene** takes over at Lock and Dam #8, from **LaVern Horstman**.

Goodbye and good luck to **Jean Biesiada**, our capable travel clerk in Logistics and to **Mary Barbo**, procurement analyst in Contracts Division. Both have moved on to other positions within the federal government.

Welcome to **Mitzi Osborn**, new realty specialist in RE. She hails from Little Rock District. Her extension is x593.

Navigation season opened with a whimper, not a bang, on March 13, when the *MV Ruth D. Jones* locked through L/D 10 in Guttenberg, Iowa at 10:28 a.m. Welcome back, spring!

TAXES TAXES TAXES TAXES

Don't Lose Your Refund

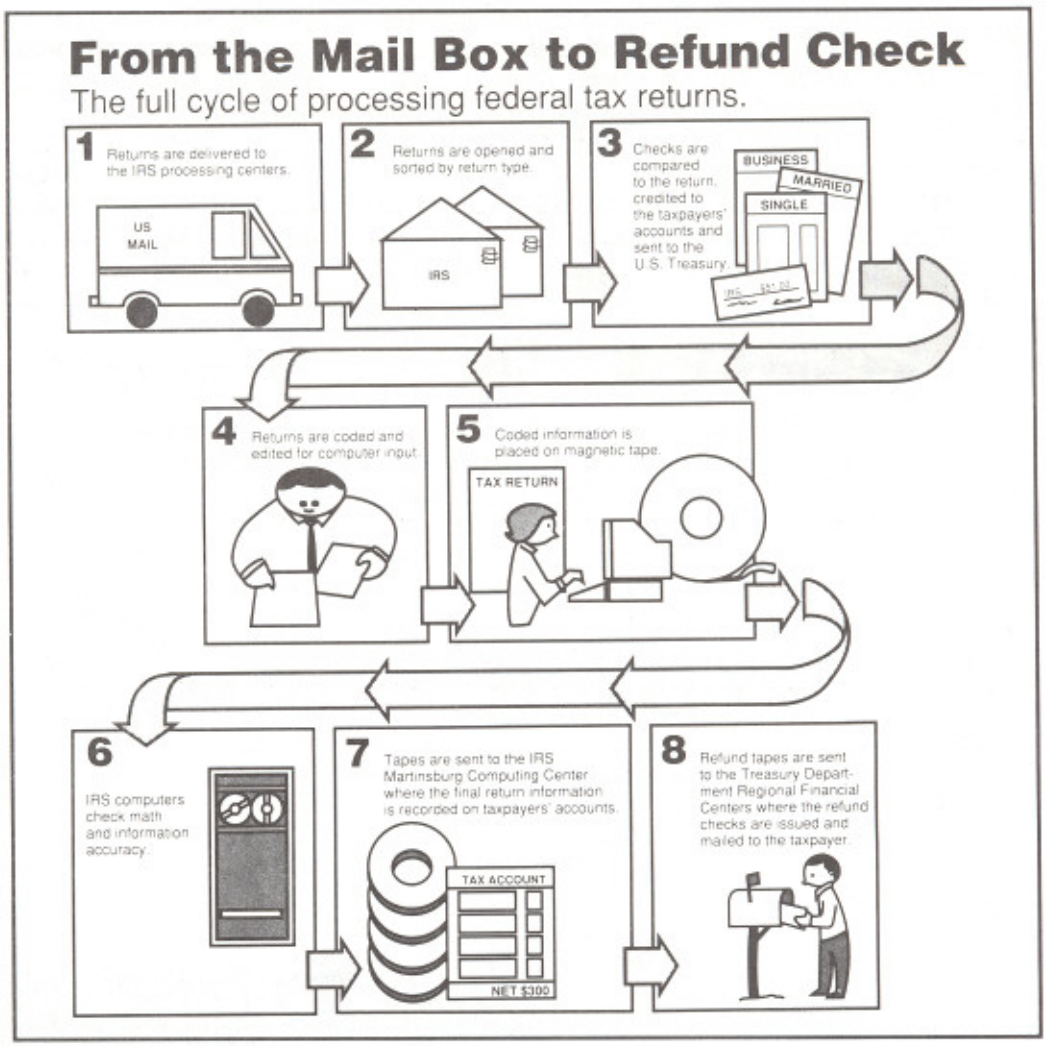
Thousands of taxpayers filed their 1989 federal income tax returns and expected refunds totalling more than $40 million - but never received them.

The Postal Service returned most of these checks marked undeliverable to the IRS. According to IRS officials, typical reasons for the return of checks included no forwarding address or an incorrect address on the income tax form.

Taxpayers who didn't receive refund checks last year but were expecting them have several options. These include filing IRS form 3911, "Taxpayer Statement Regarding Refund,", and writing the IRS service center where they filed them. IF an individual opts to write a letter to the IRS, he needs to include full name, Social Security number, tax year, old and new addresses, amount of expected refund and signature. If it was a joint return, the spouse's name, Social Security number and signature must also be included.

Keeping the IRS up to date with the correct mailing address is important, say officials, and not only to receive the refund check. Bills or notices of tax deficiencies sent to a taxpayer's last known address are legally sufficient, whether actually received or not.

IRS Form 8822, "Change of Address", will provide the agency with the correct mailing address. For copies of this and other forms, call 1/800-829-3676.



How to Fix Tax Return Errors

The IRS makes it easy to correct 1990 tax forms with errors, such as income not reported, deductions not taken or credit and deductions taken in error.

Use the Fix-It form, IRS Form 1040X "Amended US Individual Income Tax Return" to correct any previously filed Form 1040, 1040A or 1040EZ.

With a copy of the form in hand, figure the correct income and tax. If a tax refund is due, wait about 10 weeks after filing the original tax return before sending in the amended return. If additional taxes are owed, however, mail the corrected return with the form and tax payment before April 15 to avoid late penalties and interest charges.

Generally, the corrected return and form must be filed within three years from the due date of the original return or two years from the time the tax was paid, whichever is later.

It is not necessary to file an amended return to correct errors in math. IRS computers will automatically correct math errors when the returns are processed. The IRS will write the taxpayer if any more schedules or forms are required.

Chief of Engineers extends thanks for contributions to Operation Desert Storm

To all Corps Members:
Recently, GEN Vuono, the Army Chief of Staff, sent a message to the Corps thanking all of the soldiers and civilians who contributed to the success of Operation Desert Storm. I would like to add my own congratulations and appreciation to all Corps members who participated at home or abroad. The CSA's message is reprinted below:

"On 27 February, the President announced the suspension of hostilities in the Kuwaiti Theater of Operations, bringing to a triumphant conclusion one of the most successful military campaigns in the history of organized warfare. Desert Storm has been a victory for the Army, for the Nation, and for peace and freedom throughout the world.

"Today, as we witness the rebirth of a Nation and the end of a long international nightmare, America's soldiers everywhere should take enormous pride in their role in this historic triumph. Indeed, many of the unsung heroes of this operation are those who manned the ramparts of freedom in other regions of the globe, those who provided invaluable support for our forces in the desert, and those who maintained undiminished readiness within the United States for contingencies worldwide. For the United States is a global power with influence and responsibilities that reach to the far ends of the earth. Our ability to fight and win in the Persian Gulf depended, in the final analysis, on our confidence that the Nation could not be effectively challenged elsewhere. The Army throughout the world thus provided the overarching security for Operation Desert Storm.

"On behalf of a proud and grateful Nation, I extend to every soldier, every civilian, and every family member my deep appreciation and my boundless admiration for your selfless service to the American people and to the principles for which our Nation stands."

H.J. Hatch
Lieutenant General, USA
Commanding

Our new District Engineer, COL Tulloch, due this July

Colonel Walter S. (Scott) Tulloch II graduated from the Citadel with a Bachelor of Science degree in civil engineering in 1968 and was commissioned a Second Lieutenant in the U.S. Army Corps of Engineers. He went on to earn a Master of Science degree in civil engineering from the University of Texas at Austin.

Colonel Tulloch served as a Platoon Leader and Company Commander in the 249th Engineer Battalion (Construction) in Karlsruhe, Germany, followed by a tour in Vietnam as an engineer advisor. He was later assigned as an ROTC instructor at the University of Texas at Austin and as an S-3 Operations Officer with the 2nd Engineer Battalion, 2nd Infantry Division in Korea.

After two years as the Deputy District Engineer in Rock Island, Illinois, Colonel Tulloch directed development of new equipment for Special Forces at Fort Bragg, North Carolina. He was then assigned as the Director of Engineering and Housing in Schweinfurt, Germany. This assignment was followed by command of the the 14th Engineer Battalion (Corps) (Combat) at Fort Ord, California. His most recent duty was as the Deputy Director of Engineering and Construction in the Office of the Secretary of Defense at the Pentagon.

Colonel Tulloch is a graduate of the Command and General Staff College and the U.S. Naval War College. He is also registered as a professional engineer in Virginia and California.

Colonel Tulloch and his wife Karen have three daughters.

After 23 years in the Planning Division of St. Paul District, Chuck Workman finally bid the midwest "adieu" and moved to California. Unlike the westward moving "Okies" of the 30's, Chuck is moving into a drought-stricken land. As chief of Los Angeles District's Water Resources Branch, he will undoubtedly be dealing with those kinds of issues each and every day.

Here, he bids goodbye to Jean Schmidt and Ken Harrell during his farewell fest, which was, as usual, amply supplied with goodies from the folks in Plan Formulation Branch.

A recycling philosophy

By Ray Nelson, Park Ranger, Cross Lake

"Pollution Prevention" is the new buzz word for the 90's! Problems with managing solid waste have refocused attention on the importance of waste minimization, recycling and conservation. Our society is now realizing that success in protecting the environment requires sound management of wastes and pollutants and an absolute reduction in the amount of waste produced. When Native American Indian populations here in America first encountered the European explorers and settlers, the Indians were bewildered by the new peoples' lack of understanding and respect for the natural environment. The Indian people over the course of thousands of years had learned the importance of living with the surrounding environment and its many creatures. Their belief was to adopt the ways of animals and nature in order to live harmoniously in balance with the whole earth and the natural order of survival. Chief Seattle in the year 1854 offered us recycling-related foresight in his testimony to the Great Chief in Washington. This is the english translation:

"We are part of the earth and it is part of us. The perfumed flowers are our sisters; the deer, the horse, the great eagle, these are our brothers. The rocky crests, the juices of the meadows, the body heat of the pony, and man all belong to the same Family. I am a savage and I do not understand any other way. I have seen a thousand rotting buffalo on the prairie, left by the white man who shot them from an iron horse. I am a savage and I do not understand how the smoking from horse can be more important than the buffalo that we kill only to stay alive. What is a man without the beasts? If the beasts were gone, men would die from a great loneliness of spirit. For whatever happens to the beasts soon happens to man. All things are connected.

"This we know: The earth does not belong to man; Man belongs to the earth. This we know: All things are connected like the blood which unites one family. All things are connected. Whatever befalls the earth befalls the sons of the earth. Man did not weave the web of life, he is merely a strand in it. Whatever he does to the web, he does to himself."

Today, WE the Corps of Engineers as an agency, WE as employees and WE as community volunteers have the opportunity to step forward like Chief Seattle and be foresighted leaders in further protecting, conserving, and enhancing our natural resource world. There is a golden opportunity for us to educate, demonstrate and motivate the people we touch with recycling conservation messages. Providing education is crucial in order to initiate and gain support for any society valued behavioral change. The majority of people from our area experience nature at its best. They desire a relaxing outdoor atmosphere that, in a sense, is cleansing to mind and body. Recycling enthusiasm and participation is a valuable appreciation that we hope the public will be adopting in 1991.

This summer, in the Headwaters Area, the Big Buzz Slogan will be: "Learn to Recycle": Our interpretive programs will include recycling messages, imaginative posters provided by our Elementary School Recycling Poster contest and displayed at every available kiosk, and separate containers will be placed for recyclables only, i.e., aluminum, glass, plastic, metal cans. Also, our staff will collect office paper and computer paper waste from their respective buildings for recycling. Recycling, reducing waste and becoming better caretakers of what remains of our natural world is each and everyone's conscious responsibility. The time has come and it is now prudent for each of us to educate, motivate and demonstrate to each other the wise use of all recyclable resources.

Remembering Chief Seattle's statement, "Whatever befalls the earth befalls the sons of the earth!", reminds one of an old adage that helps stress this message. This important topic was discussed frequently in conversation among our early forefathers and it still offers today's world some very needed daily guidance. The verbage is thus: "If you own a horse, you need to do three tasks each and every day, you need to feed the horse, water the horse and clean up behind your horse!"

That's the scoop - now join the group that recycles.

Bicycle season calls for thinking, and acting safely

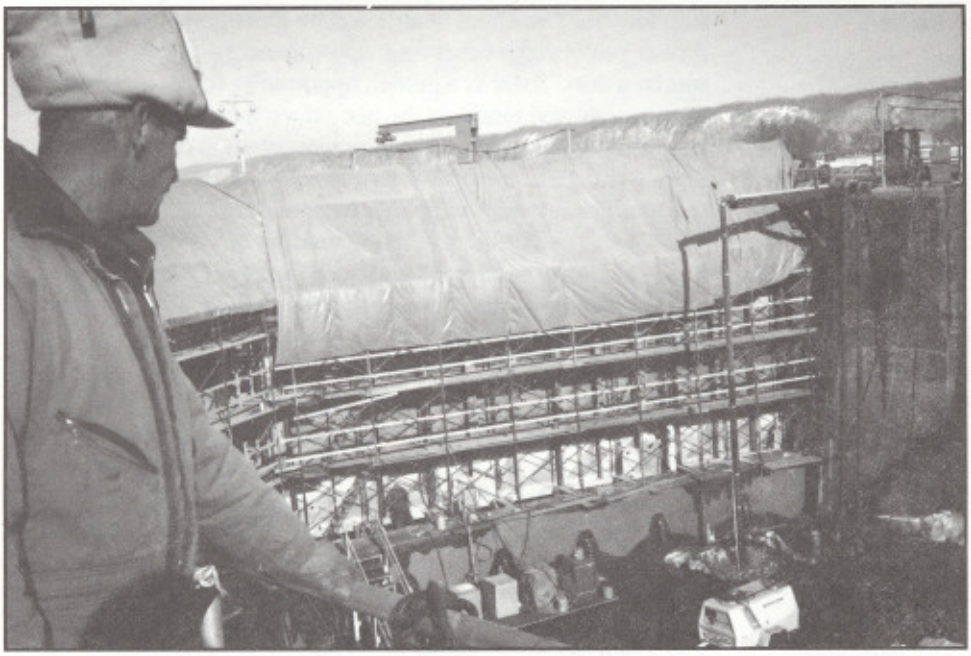
Now that summer is here (when the temperature is 70 degrees farenheit two days in a row, it's no longer spring!), people are getting their bikes out from basements and garages, buying chrome cleaner and lubrication oil, getting ready to start wheeling on the weekends. Some employees who bicycle to work are undoubtedly ready right now to take advantage of the nice weather. It isn't a bad idea to review some important safety tips that can make this season of cycling a happy one.

When biking on the road, remember to keep to the right-hand side of the road, go with the traffic, ride single file when in a group, obey all traffic signals and signs, walk your bike across busy streets, use less traveled roads with the least amount of traffic, keep both hands on the handlebars except when signaling, watch for sudden opening of doors on parked cars, give cars and pedestrians the right-of-way, watch your own speed and keep control.

Don't ride on freeways or expressways; don't use sidewalks in areas where there are a lot of people or parking entrances; don't ride double unless it's a bicycle built for two; don't park in spaces reserved for automobiles, don't leave your bike unattended or unlocked; don't ride at night unless your bike is equipped with a headlight and rear reflector; don't perform stunts on the street, cut in front of traffic or violate the right-of-way; and don't leave the scene of an accident.

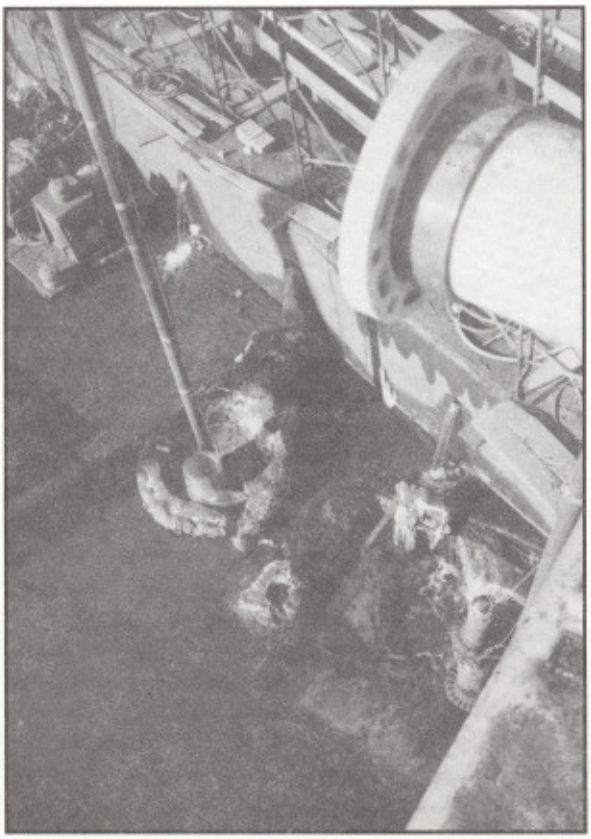
Remember, obey all traffic laws just as if you were in an automobile!

Lock 10 dewatering victory of engineering technology



Above, Jon Andregg, head operator at Lock and Dam #10, surveys the "rehab" activity underway in the dewatered lock chamber. The lock's miter gates (center)are being sandblasted and painted.

Below, a close-up shot of a deep-well discharge pump, designed to relieve groundwater pressure deep under the chamber floor.The depressed area on the right side holds a sump pump, the more common way to dewater a lock, removing water that seeps into the floor.



Despite Old Man River's "seep and fill" tactics in the battle of the elements at Lock and Dam No. 10 this winter, the major rehabilitation of the facility proceeded right on schedule. Keeping the river out of the dewatered lock was a particular problem at the Guttenberg, Iowa, installation. This was partly because of the nature of the substrate, which contains highly-permeable sand layered in places with clay. In addition, leaks were traced to the sheet pile cutoffs under the lock wall, between the auxiliary and main locks.

According to Dennis Cin, of Construction-Operations Division, "This rehab project was the first time the lock had been dewatered since its construction in 1937, because of the difficulty with seepage under and around, and, as we now know, through the steel-sheet piling of the lock walls." Repairs and maintenance were attempted in 1978, when the lock was dewatered to about six feet of the lock bottom. At that point, piezometer readings warned that uplift pressure from seepage was threatening to thrust up the lock floor, and the dewatering was stopped.

Geotechnical engineers began investigating methods of protecting the structure during dewatering. The method finally selected was installation of a series of 20 deep wells within the lock chamber. The wells were installed during the 1989-1990 non-navigation season. A trial dewatering was accomplished in early February 1990, to confirm the effectiveness and performance of the deep wells, which reach 33 feet below the lock floor. And in December, 1990, the dewatering for rehabilitation work on No. 10 proceeded without further delay.

Each of the deep well pumps discharged 250 to 500 gallons a minute (gpm) with a total discharge of about 7,100 gpm. In-lock observation wells showed a lowering of the water table to about the level of the lock floor. Off-site observation wells, located at a 90 degree angle to the lock, revealed the progressive groundwater drawdown away from the lock.

"Engineering Division had earlier computed the probable effects of the groundwater drawdown, including the possible failure of shallow wells in several nearby buildings," says Dennis Cin. "The Corps, to avoid an emergency situation for neighbors in Guttenberg, connected city water to those buildings."

The Corps "Good Neighbor Policy" went further than that, as Arne Thomsen, the Project Engineer, points out. "The rehab project proved to be a definite plus for the local economy... the contractor had 40 people, the Corps River and Harbors Unit included some 50 people ... all living in the Guttenberg area. The motels were filled, restaurants were busy, plus we bought quite a few supplies and equipment locally."

While the deep wells did the job of relieving the uplift pressure under the lock floor, some 5,000 to 10,000 gallons per minute continued to flow into the lock chamber. Water spouted from the weepholes in the lock floor, and through joints in the floor and

walls. Three to four inches of water remained on the lock floor despite the working of six 8-inch sump pumps.

"We figured that in case of an electrical failure that would incapacitate the deep well pumps, the water pressures beneath the lock chamber would build to an unacceptable level within 15 to 30 minutes, requiring emergency reflooding of the lock," stated Darrell Morey of Geotechnical Design. Safety meetings from the start emphasized the warning siren that would sound to signal "Abandon Lock". The contractor maintained a back-up 900 kilowatt auxiliary generator, powered by a 1,300 horsepower diesel engine, ready at the site. And observation wells, or piezometers, in the lock floor were monitored regularly.

In the upper gate bay, water continued to flow in so strongly that one eight-inch and one six-inch sump pump couldn't draw the water level down to less than one foot. According to Thomsen, after voids under the floor, some as large as 42 inches deep, were filled, the inflow could be controlled with a 6six-inch pump.

"Water also drained through a pipe in the miter gate sill, to a sump pump."
The break finally came in late February, when Thomsen, using dye testing, detected direct flows under the intermediate wall. "We placed sand riverward of the intermediate wall, which succeeded in reducing the flow into the lock. That allowed us to complete the grouting in the lock floor, just in time for the scheduled refilling of the chamber."

Despite the flow problem, which is believed to have been caused by some void in the sheet piling under the wall, the rehab work generally progressed smoothly, according to Dean Peterson, Eastern Area Engineer. Deteriorated concrete was sawed out and replaced. Weep holes in the lock floor, which had somehow, sometime over the past 50 years, been grouted in, were opened to help prevent build-up of water pressure under the lock floor. Monolith joints have been repaired with polymer concrete. Voids under functioning weep holes have been pumped full of grout. "Over 7,000 cubic feet of grout has been pumped under the gate bay and lock chamber floors,' Peterson observes.

Arnie Wodarz, Chief of the District's Rivers and Harbors Unit, kept crews working around the clock. "They sandblasted and painted the lock gates and valves; replaced seals, timbers, anchorage bars, and pintles; replaced deteriorated metal on the gates and valves; and installed new sump liners and a new stainless steel bubbler system." The lock was refilled on March 4, the scheduled completion date.

Despite the best efforts of Old Man River, Lock No. 10 was ready and waiting for traffic when the 1991 navigation season opened in the St. Paul District as the first tow locked through on March 13.

By Rose Braatz, Writer/Editor, Construction/Operations Division

At left, deep-well discharge empties into the river during one of the colder days of winter.

Below, a view of the dewatered lock during installation of the bubbler piping, foreground. The bubbler system moves compressed air into a system of pipes around the miter gates that keeps the water from freezing. One barge, seen at upper right, was used to move the heavy equipment into the chamber, thus minimizing the amount of floorspace blocked. The wall chamber joints at left have already been repaired.

It won't be long before they're at this again!

Fishing Clinics at Sandy Lake

The Corps of Engineers at Sandy Lake Dam participated in National Fishing Week by sponsoring a fishing clinic last June. Youth from the campground and the "Pride of Palisade" 4-H club were invited, resulting in approximately forty youth and adult volunteers attending. The clinic consisted of six hands-on learning stations, each displaying a different aspect of fishing.

After weeks of planning and preparation, the seminar got underway on the morning of June 9th. As Ranger Mike Sommerland was busy registering the students, the rest of the staff members were putting the final touches on their display panels. Following a light lunch of hot dogs and beans provided by the park rangers, the real action began.
The participants were separated into five groups, each starting at a different station.

Station One, taught by volunteer Robert Dewitt of Palisade, showed the students how to identify six different species of fish, kept in a holding pond. The use of live northerns, walleyes, bass, crappies, sunfish and suckers greatly enhanced the students' identification skills.

Station Two, taught by Ranger Terry Ladd, demonstrated various fishing knots and uses. Complicated knots were made simple for little hands with the use of oversized mock tackle. Each child practiced the new knots by using giant wire hooks and eighth-inch cotton rope. Most students eventually tied the knots correctly and came away with the knowledge that there are better methods to use than a simple overhand knot when tying on tackle. Each student was given a giant hook and step-by-step instructions so the knots could be practiced at home.

The theory and wide variety found in the world of artificial lures was discussed at Station Three, taught by Manager Jeff Steere. Jeff, quite knowledgable in the art of fishing, dug through his seven (count em', seven!) tackle boxes and assembled an impressive colorful display panel showing several hundred different lure styles. The lures were arranged according to the species of fish they are designed to catch. Each lure type was discussed and then demonstrated in a specially constructed pool.

Ranger Kenton Dean introduced the art of casting at Station Four. Several different types of rod and reel combinations were used to demonstrate proper usage, care, techniques and casting accuracy. Each student had a chance to practice using the different types of equipment and then compete for accuracy by trying to cast a weight into a target fifty feet away. Casting accurately is not easy but it does save the angler from doing battle with those hard fighting tree limbs.

Station Five, taught by Co-op Ranger Paul Pence, discussed the uses of live bait to catch fish. Live minnows, leeches and night crawlers were used to demonstrate hooking techniques for natural presentations. Numerous examples of live bait rigs were prepared and demonstrated. The proper handling, preservation, and capture of live baits was also emphasized. Most of the students were easily entertained by playing with the minnows and night crawlers, but only the most brave would venture their hands into the seething black mass of leeches.

Station Six, taught by all the teachers, and attended by the group as a whole, stressed the importance of and the proper way to release fish unharmed. All of the youth were given a chance to net and release some of the fish in the holding pond or live boxes. The group released over twenty crappies and sunfish, ten northerns (the largest was five pounds), and several walleyes and bass. By releasing the fish themselves, the students were better able to understand the importance of sportsmanship and good fishing ethics.

When the teaching phase of the clinic was over, a drawing was held for three minnow traps that were constructed by the park rangers. Each participant then received a course completion certificate and a water safety whistle.

The clinic wrapped up by setting the children loose to test out some of their newly learned techniques at the tailwaters of the dam. Although no new records were caught, plenty of walleyes and northerns cooperated with the young anglers.

The fishing clinic was a big success and a worthwhile educational experience for all that attended. The 4-H club requested that the Corps make the clinic a yearly tradition.

By Paul Pence
Co-op Ranger, Sandy Lake

Crosscurrents

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