

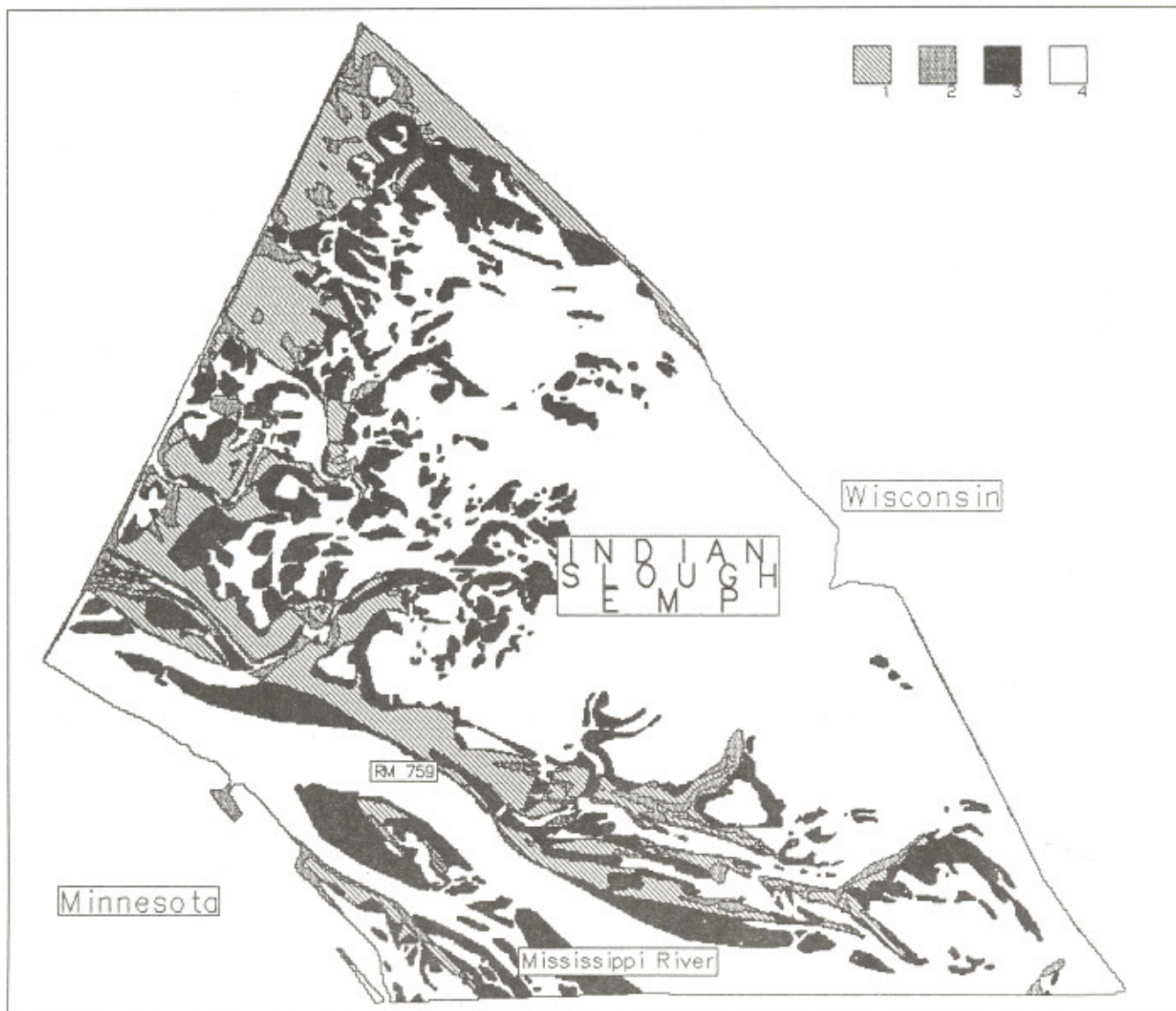


US Army Corps
of Engineers
St. Paul District

Crosscurrents

Vol. 13 No. 3, March 1990

G.I.S. - Viewing the past and predicting the future



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The above computer illustration of the Indian Slough/Big Lake area, near Wabasha MN, was generated through the Geographical Information System. It shows geographical changes that have taken place over the last forty years. The numbers on the map legend in top right corner correspond as follows: #1 & 4 are land and water areas that have remained the same; #2 is land that has eroded away and is now open water; #3 is the opposite of #2, water areas that have filled in with material and are now land mass. Story on page four.

Bits and Pieces

Public Presentations

DE Colonel Roger Baldwin spoke at the Wisconsin chapter meeting of The Wildlife Society on February 2nd. Main topics were the Environmental Management Program and beneficial use of dredge material. COL Baldwin also spoke at the Partnership Minnesota meeting on February 9th in St. Paul. The topic was state and federal cooperation during natural disasters, citing the Red River of the North flood of 1989. Ron Nargang, chief of the Division of Waters for the MNDNR, gave the state perspective. The DE also gave an overview of the District to Army Guard and Reserve Engineers on January 27th.

The Cable News Network aired a short piece on the LaFarge Project in Wisconsin for which **COL Baldwin** was interviewed. The tape is available from Public Affairs.

Stan Kumpula spoke to the Consulting Engineers Council of Minnesota about architect/engineering & construction inspection contracting on February 8th.

Marsha Risch spoke to the St. Paul Society of Engineers on the St. Paul Project on February 21st.

Dale Pfeiffle spoke to the Wisconsin DNR Southeast Water Managers in Milwaukee on February 27th. The topic was the Section 404 Program & how state and federal programs can work better together.

John Anfinson spoke to the Mississippi River Advisory Council of the Iowa DOT on February 21st on the history of the 9-foot channel.

Editor: Did you make any public presentations recently? If so, please let us know!

The year 1991 represents something special to the St. Paul District. Not only is it the year that the new decade officially starts (let's not revive that argument!), but it is the official anniversary of 125 years of the District's existence. Two questions are asked: Who remembers what the 100th celebration consisted of (please call John Anfinson); and what shall we do for the 125th? Anyone wishing to be involved in the planning is asked to contact Public Affairs.

An **alternative work schedule** policy for the St. Paul District has been established, details of which have been distributed to all employees. After final comments and approval by the Commander, it is scheduled to take effect March 25, 1990.

Do You Know These People?

During the last mailing of *Crosscurrents*, several packages came back, marked Forwarding Address Expired. If anyone knows the new addresses of the following folks, assumed to be **retirees**, please call Public Affairs at 612/220-0200: **Margaret Madden**, St. Paul; **Ann Vaidich**, South St. Paul; **Charles Bridger**, St. Paul; **Herbert Peck**, Mound MN; **Arnold Marquardt**, Rice Lake WI; **Mr/s Bartley Tait**, West St. Paul; **Robert G.**

Anderson, Fort Lauderdale FL; **Carol Wilander**, Havlock NC; **MG Charles McGinnis**, Ballwin MO; **William C. Lincoln**, Fergus Falls MN; **Frank Vanderwalker**, Spring Valley CA; **Lexine Jordan**, Bedford TX.

Nominations for the **Civil Servant of the Year Award** are due in Planning Division by March 9th. From these names, the District will select three to be forwarded to the Federal Executive Board as our representatives. See **Lou Kowalski** for more information; any employee can submit a nomination.

New Employees

A couple of employees made it into the District just before the door closed due to the hiring freeze. This may be the last time we have notice of new employees for quite some months!

Mark Lisney is a new study manager in Plan Formulation. Mark hails most recently from the Louisville District, where he was part of the Navigation Planning Support Center and Special Studies in Planning Division. He actually started with the Corps in 1979 and 1980 as a co-op student right here in St. Paul District. Mark worked in both Small Projects and Hydraulics at that time.

The other new employee, who says he made it within two days of the freeze, is **Tom Crump**, now in Floodplain Management and Small Projects Branch of Planning Division. Tom has done geotechnical engineering in Frankfurt, Germany for the last five years and was formerly with the St. Louis District.

Billy Cabe, chief of Real Estate Office, received an award for a recently adopted suggestion regarding inter-office communications. He designed and implemented a "service request form" to be used when one district element needs work done by another element. The form outlines costs, timetables and work specifications and should increase both accountability and clear communications between district elements.

Obituaries

Edward Kauppi of Lake Linden, Michigan, has died. No information on Mr. Kauppi's federal career was available.

Samuel B. Isbell of Genoa, Wisconsin, has died. No information on Mr. Isbell's career with the St. Paul District is known at this time.

Milton Evenson, 77, of St. Paul, Minnesota, died January 29, 1990 of heart problems. Mr. Evenson worked as an engineering technician and draftsman with the St. Paul District, completing his 30 year Corps career. He was known in local circles for his interest in antique automobiles.

Edgar Hollenbeck of St. Paul, Minnesota, died January 27, 1990. No information on Mr. Hollenbeck's work history with the Corps was available.

Tax Tips Tax Tips Tax Tips Tax Tips Tax Tips Tax Tips Tax Tips Tax Tips Tax Tips Tax Tips Tax Tips Tax Tips Tax Tips Tax

Top 10 Taxpayer Errors

1. Wrong Social Security or Employer Identification number entered
2. Did not claim standard deduction
3. Did not claim earned income credit when entitled
4. Incorrect name entered
5. Name line not updated when required
6. Wrong entry for estimated payments
7. Did not enter total tax
8. Math error in computing refund
9. Did not check dependency status box
10. Duplicate return filed even though not required

IRAs Save Today

Working persons interested in tax-deferred savings and a likely tax deduction may want to start or continue an Individual Retirement Arrangement.

All IRA earnings are tax-deferred. That means no tax has to be paid on earned interest or gains until the funds are withdrawn. If you meet the eligibility requirements, you may be able to realize significant tax savings by deducting the annual maximum \$2,000 IRA contribution on your tax return.

Generally, you can claim the maximum deduction if neither you nor your spouse is an active participant in an employer-maintained retirement plan. The amount of your adjusted gross income is not a factor here.

If either of you actively participates in an employer-maintained retirement plan, the full IRA deduction can be claimed only if your adjusted gross income is less than \$40,000 for married couples filing jointly or \$25,000 for singles. The allowable IRA deduction begins to phase out at those income levels and disappears altogether at \$50,000 for couples filing jointly and \$35,000 for singles. You can still make non-deductible contributions to make up the difference between the amount deductible and \$2,000.

In recent years, spouses of employed taxpayers have been able to have IRA

accounts even if they receive no compensation.

Additional information is available in IRS Publication 590, Individual Retirement Arrangements. You can get it free by using the order form in your tax package or by calling toll-free (800) 424-3676.

Withholding That Fits

Employees should tailor their federal tax withholding early in the year so they wind up with little tax owed or to be refunded for 1990.

Generally, tax law requires employees to have enough tax withheld from their wages or make quarterly estimated tax payments sufficient to equal 90 percent of their total 1990 tax bill.

Employees who find they are having too little or too much tax withheld should file another W-4 withholding form with their employers.

Internal Revenue Service Publication 919, *Is My Withholding Correct for 1990?*, offers extra details. To order a free copy, call toll-free (800) 424-3676, or mail in the order blank in the tax return package.

Working Students May Owe Taxes

Tax consequences for students working part-time or summer jobs have become increasingly more complex. Recent tax changes mean students and parents or guardians may want to carefully explore several factors prior to the student accepting employment:

- * How much will the student make at this job during the year?
- * Will the student have any other job by the end of the year?
- * Does the student have a savings account or other investment that will earn interest or dividends?
- * Does the student have or expect to

receive a scholarship that is partially or fully taxable during the year?

- * Can the student be claimed as a dependent on someone else's tax return?

These questions should be considered when students fill out Form W-4, "Employee's Withholding Allowance Certificate," to determine how much, if any, tax should be withheld from each paycheck.

A single student claimed as a dependent by another person generally can earn up to \$3,100 in wages, tips and taxable scholarships before a federal income tax return must be filed. The student must, however, have no unearned income, such as interest or dividends. If the student has unearned income, a return must be filed when it exceeds \$500.

Form W-4 contains more information on this topic. Copies are routinely available from most employers or by calling the Internal Revenue Service at (800) 424-3676.

This Check Self-Destructs

The law requires that federal tax refund checks be cashed within 365 days of the date noted on the check. After that time, the check becomes invalid. Should that happen, the recipient must contact the Internal Revenue Service and re-establish the right to a refund before a new check will be issued.

Bad Check Penalty

The penalty for paying your federal income tax bill with a bad check is now 2 percent of the amount of the tax payment, or \$15, whichever is more. If the payment is less than \$15, however, the penalty is equal to the amount of the payment.

Geographical Information System

Helping planners, engineers and resource managers make better decisions about the impacts of their work on the environment; will be linked to CADD

Remember the geography classes in elementary school, where you would copy maps out of books? The rivers and lakes were blue, the land green, roads black. There was nothing between you and the map but your color crayon.

However, maps today are not so simple. Goodbye Crayola, hello GIS! What is GIS you ask? You could call it the superduper, heavy duty crayon for working with maps in the St. Paul District, only this crayon predicts the future. The GIS (Geographical Information System) came to work for the Corps of Engineers in 1988. GIS consists of the appropriate hardware in the form of computers, graphic screens and printers, software programs to manipulate various forms of geographic data, and a large database from which to draw information. There are now work stations in La Crescent, Minnesota and the district office.

GIS takes different types of information, called layers, about a geographic area and manipulates them, sometimes merging two or more to show a new aspect—for example, to show the effect on flooding that a new dam would cause. Layers may contain information such as topographical characteristics, vegetation type or land ownership. In layman's terms, GIS is a 'flight simulator' for resource decision-makers, allowing them to examine the results of many scenarios.

"... it allows new kinds of complex analyses that are becoming necessary as land management problems become more complex," said Terry Birkenstock, district GIS coordinator. "This should improve our decision making capabilities."

In the future, GIS will be connected with the district's CADD (Computer Aided Drafting and Design) system. The system as a whole may then be used in various ways by planners, resource managers, engineers and scientists, among others. Birkenstock is planning inhouse training so that the full potential of GIS can be realized. Eventually the system will allow each of the many disciplines within the district to access a corporate data base and manipulate the data to meet the needs of their individual studies, Birkenstock said.

"It allows new kinds of complex analyses that are becoming necessary as land management problems become more complex," Birkenstock stated.

In the St. Paul District, GIS currently has many important uses. It is being used to develop and implement the district Forest Management Plan. It is also helping to monitor the effects of a new reservoir operating plan on wetland vegetation, in the development of both master plans and operational management plans, and assisting in drought impact assessments. These tasks, previously done by hand, are now accomplished much more quickly.

Spatial data for the data base is collected in several different forms. These include aerial photos or satellite images, some scanned from existing maps by a scanning machine, and some digitized by hand. Digitizing by hand is the least efficient way of gathering data because it requires a great deal of time and tedious effort by a technician.

Building the database is by far the most expensive aspect of the GIS implementation. Fortunately, the St. Paul District's GIS is being developed to allow the exchange of data with other organizations such as the Soil Conservation Service, the U.S. Fish and Wildlife Service, and state agencies, rather than collecting new data at a much greater cost. Birkenstock added, "It will greatly reduce duplication of data collection, both within the district and among agencies."

With the help of the Geographical Information System, the St. Paul District can make better resource decisions as it provides engineering solutions to environmental restoration problems.

By Marianna Brown, Public Affairs



AT RIGHT: Terry Birkenstock, district GIS Coordinator, holds photographs of the Indian Slough/Big Lake, taken 40 years apart. Once layered in GIS, they can produce maps that illustrate the geographical changes that have taken place. These photos helped create the computer illustration on the cover.

The Deputy Responds

My solution is "pockets of excellence"

I didn't get much in my comment box last month that lends itself well to a published response. I did have some very interesting conversations at my "brownbags," a couple of the locks, and several ad hoc sessions around the district. I continue to be impressed by the dedication, interest, and concern displayed by the members of this district.

I'm repeatedly accosted about my assertions that low morale isn't a problem here. People tell me I'm dead wrong. They say their morale is low, and that's a problem. Then we talk, and I find out that they are frustrated and somewhat unhappy.

"What we have here is a failure to communicate!"

"Morale" to me is not the same as happiness. Morale means being interested in what you're doing, loyalty, common purpose, making a contribution and demanding better performance. On this scale we look pretty good. Even the people who tell me their morale is low hasten to add that they're doing good work. Their unhappiness and frustration stem from the type and level of work they're assigned.

I look for the indicators of low morale — high turnover, absenteeism, tardiness, lackadaisical effort, inability to recruit good people, etc. — and I don't find them. Our turnover is very low. Everyone tells me that we have good people who do good work.

So what's the problem? We have a lot of ambitious, energetic people and we're not challenging them. That's a leadership problem that we're trying to address in a number of contexts. It's not easy to fix, and it will take some time.

My solution is "pockets of excellence". I can't accept that all of our bosses conspire to keep us from doing useful work. Take the responsibility and authority that you have, mix in the best managerial practices you know, and produce the best output you are capable of. It's contagious! Sometimes it's an individual, sometimes a small group, sometimes a whole branch, but there are "pockets of excellence" in every organization. It's fun to be part of one; it's exciting, and rewarding.



I'd be more worried about morale if our people who are unchallenged and frustrated didn't complain. That would be a problem. Their discontent is the indicator that they possess the real "morale" to make things better. Try forming your own "pocket of excellence". Get with the other talented folks around you and help your supervisor develop a high performance unit. If your supervisor is reluctant, do it without him/her; the real strength of the "pocket" is in the workers, not the supervisors.

Your morale's ok. You're still here, and you're still working hard. Don't just talk to me about being unhappy and frustrated, do something about it.

**By LTC Mike Mahoney
Deputy District Commander**

Secretary Page honored for CPAR Program

Engineering News-Record calls him "marksman" for construction industry

Assistant Secretary of the Army (Civil Works), Robert W. Page, has been recognized by *Engineering News-Record* as a Marksman for his Construction Productivity Advancement Research (CPAR) program.

Secretary Page was one of 45 people who made a "mark on the industry" and "served the best interest of the construction industry last year". CPAR is a cost-shared partnership between the Corps and the construction industry, including academic institutions, non-

profit organizations, state and local agencies and others interested in improving construction productivity and competitiveness.

The federal government provides money to promote the research. In last year's program, the Corps contributed more than \$2.7 million, while industry partners have committed over \$7 million to pursue 17 projects.

Secretary Page, who serves as the Chairman of the Board of Directors of

the Panama Canal Commission, has an extensive background in private industry and served in several chief executive officer capacities prior to his appointment by President Reagan to be the Assistant Secretary of the Army for Civil Works. He was reappointed by President Bush in 1989. He developed the CPAR program to stimulate research in the U.S. construction industry.

Engineering News-Record is a major publication in the engineering field.

Rape Prevention

In the workplace and at home

Editor: In recognition of Women's History Month in March, we have extracted information from publications on the delicate and disturbing subject of rape. This is not to say that only women are rape victims, but to express hope that both genders, by becoming a little more educated, will assist in the eventual erosion of this form of violence (dare we hope, eradication?). Anyone who has a mother (all who don't fit in this category may stop reading here) sister, wife or close female acquaintance is likely to be impacted very directly if that person were victimized in this way... so, this does mean you.

Rape is a four letter word—an act of violence. Though it is an unpleasant subject that most people don't like to discuss, it does happen, it can happen and steps toward prevention must be made not only in the work place, but everywhere. Every person should be safe from rape and sexual assault at work, at home, and in the streets. There are many ways you can avoid becoming a victim. Staying alert and knowing what to do can be effective. One of the first defenses against rape is knowing the facts.

Rape victims generally know their attackers.....FALSE!

Truth: Reliable statistics are difficult to come by because rape is the most underreported crime. According to statistics from the US. Department of Justice, in more than half of reported rapes, the rapist is a stranger. However, it is estimated that most victims of unreported rape knew their attackers.

People secretly want to be raped.....FALSE!

Truth: This is the worst falsehood of all. Rape is a violent crime that traumatizes—physically and mentally— and sometimes kills its victims. No one wants it to happen.

Rape happens only in the dead of night.....FALSE!

Truth: Most rapes happen between 6 p.m. and midnight.

Most rape victims are young and attractive.....FALSE!

Truth: Rape victims are of all ages—as young as babies, as old as octogenarians. Rapists don't care who you are or what you look like.

Most rapes happen in the victim's house.....FALSE!

Truth: Only one fourth of rapes occur in a victim's home. Nearly 40 percent happen on the street or in parking lots, garages, parks and playgrounds.

There's nothing you can do to prevent rape.....FALSE!

Truth: There a lot one can do to prevent rape. Learn when and where rape is most likely to happen and how to take precautions.

What do you know about avoiding rape and sexual assault?

QUESTION:

Which of the following are true?

- A. Use the stairs, they are generally safer than elevators.
- B. Women's restrooms are safe because only women use them.
- C. Hallways in the post office building are patrolled regularly.

ANSWER: None of the above are true. To insure your safety at work, avoid the stairs. Assailants can hide there. It is not at all unusual for assailants to hide in restrooms. If you will be at the office late, go with someone when you use the restroom and check the stalls before entering. Use them before the close of business and not again until you get home. The post office building has no security system.

QUESTION: Which are good ideas if you take public transportation to and from work?

- A. Sit near the driver on the bus.
- B. Never take an aisle seat.
- C. Arrange an escort from work to the bus and from the bus home, particularly during after hours.

ANSWER: A and C are correct. Window seats away from the driver allow someone to corner you. Aisle seats allow you to get up and move if bothered by anyone.

QUESTION: If you have to walk alone after dark, how can you protect yourself?

- A. Be cautious, walk near bushes or close to buildings for cover.
- B. Walk with confidence, head up.
- C. Walk briskly, facing traffic.

ANSWER: Both B and C are correct. Stay away from bushes and dark places—these are places where assailants hide. Use well lighted, main streets as much as possible. If you think you are being followed, go to a nearby store or gas station. Walk with confidence, be alert—criminals prey upon people they think look vulnerable. Walk on the sidewalk facing traffic. Don't give drivers a chance to sneak up behind you.

QUESTION: What should you do if someone on the elevator makes you feel uneasy?

- A. Stand away from them, at the back of the elevator.
- B. Get off the elevator when others get off.
- C. Stand in the front of the elevator until your floor.

ANSWER: B and C are correct. If you are uncomfortable, trust your instincts and get off. Find an escort, and don't use the stairs—the potential attacker may be waiting for you. Stand away from the door when waiting for an elevator, so you won't be pushed or pulled in, and stand at the front of elevator when inside, near the control panel so if any problems arise, you can sound the alarm, and hit as many floor buttons as you can.

QUESTION: How can you protect yourself when driving in your car?

- A. Hail passing motorist if you break down.
- B. Keep your doors locked and windows rolled up.
- C. Keep your car in good repair.

ANSWER: B and C are correct. In hot weather, roll up the windows as far as you can. Be sure to keep your car in good repair and with plenty of gas in the tank—this will cut down on the chances of a breakdown in an unsafe area. If you do break down, tie a white rag to the antenna or door handle, and then stay in the car with the doors locked and windows rolled up. If someone stops to provide assistance, ask that person to call the police for you.



QUESTION: How can you protect yourself by the clothing you wear?

- A. Wear low-heeled or running shoes.
- B. Wear clothes that are not suggestive or flashy.
- C. Wear clothing that is not confining.

ANSWER: A and C are correct. People used to think that women "invited" rape by the clothes they wore. Studies have shown that rapists aren't even aware of their victim's clothing. The clothing you wear should not hamper you in the event that you need to get away fast. Wear walking shoes and change shoes when you reach the office. Long slim skirts also prevent you from running in the event of danger.

QUESTION: How should you respond if you are assaulted?

- A. Scream and run away.
- B. Attack your assailant.
- C. Submit.

ANSWER: Depending on the circumstances, all three are correct. Scream first, it may startle your attacker into loosening his grip or letting go. Run, don't look back, just get away. Kick off your shoes if you have time and you can't run in them. If your assailant doesn't let go, you can try to fight back, but you must be prepared to hurt them. A rapist is a violent person; they will hurt you if you don't hurt them first. If the person has a weapon, you may have only one choice, submit. If you fight back, you may be killed. Your goal is to survive.

QUESTION: How can you protect yourself if you are working late?

- A. Arrange to have others work late the same evening.
- B. Lock the door to your office.
- C. Avoid working late.

ANSWER: All are correct. Try to avoid working late, but if you can't, there's safety in numbers. Lock your door and don't 'advertise' that you are in your office alone. When you are ready to leave, call home and let someone know that you are on your way.

Women's History Month Essay Contest

The Federal Women's Program Committee would like to thank Donna L. Zappa of the Electronic Service Center in Hastings for her entry in the Contest. Her piece, entitled "a real woman" will be entered into the Twin Cities competition as the District's entry. Good luck, Donna!

a real woman

a real woman is one
that is everything and nothing and all the elements of life.
because if she isn't, she isn't
a real woman.

a real woman is one
that is compassionate and gentle and kind and cruel.
because if she isn't, she isn't
a real woman.

a real woman is one
that is appreciated and liked and respected and hated.
because if she isn't, she isn't
a real woman.

a real woman is one
that is attractive and pretty and sexy and ugly.
because if she isn't, she isn't
a real woman.

a real woman is one
that is alert and intelligent and smart and dumb.
because if she isn't, she isn't
a real woman.

a real woman is one
that is active and ambitious and energetic and lazy.
because if she isn't, she isn't
a real woman.

a real woman is one
that is childish and young and youthful and old.
because if she isn't, she isn't
a real woman.

a real woman is one
that is everything and nothing and all the elements of life.
because if she isn't, she isn't
a real woman.

Deb Foley receives national S.A.M.E. Award

Women's History Month is an appropriate month for a woman from our District to make history. Deborah Foley, project manager in the Life Cycle Program Management Office, has been named the winner of the Ralph A. Tudor Award, given each year by the national headquarters of the Society of American Military Engineers (S.A.M.E.). This is the first time that anyone from the Post or the St. Paul District has received such recognition. Deborah had earlier been named Young Engineer of the Year by the Minneapolis - St. Paul Post of S.A.M.E.

The Tudor Medal is offered annually to a civilian engineer member of The Society, who is nominated by their Post for outstanding contributions to engineering design, construction, research, development or planning and is less than 36 years old. Competition included numerous other young engineers from all over the world.

Deborah was honored for her key role in the District's implementation of the Life Cycle System and the 1986 Water Resources Development Act; her continuing management of the \$90 million Rochester Project; publication of papers in engineering magazines and earning six awards for superior performance during her 13 year career with the Corps of Engineers. She was also project manager for the award-winning Weaver Bottoms Project, which was awarded the Chief of Engineers Award of Excellence for 1989. (See Weaver Bottoms, *Crosscurrents* February 1990 issue). Weaver Bottoms also won the Environmental Honor Award in the Chief's 1989 program as well as the Grand Award for Engineering Excellence from the Consulting Engineers Council of Minnesota in 1987. Photo on next page.

Wild rice surveys in Headwaters aided by local tribes

by Joe Green, Park Ranger, Remer

One outcome of the 1988 drought was a review of the District's low flow operation of the Headwaters Lakes. A major concern about low Headwaters lake levels is the effect on the growth, yield, and access for harvest of wild rice. Wild rice is an annual grass that grows in shallow water in the Headwaters Lakes.

Wild rice is an economically and spiritually important resource to the Chippewa Indian people. A survey of lake bed elevation in wild rice beds was conducted during the summer of 1989 to determine the effect of low lake levels on access to wild rice beds for harvest. The lakes involved in the survey were Leech, Sandy, and Winnibigoshish.

The survey was performed by Joe Green, Headwaters Ranger, and members of the Leech Lake and Mille Lacs Bands of Chippewa Indians. In early June last year, Dan Wilcox, Environmental Resources Branch fisheries

biologist, and Joe Green met with tribal interests and discussed the location of wild rice beds, survey techniques, equipment needs, and logistics of conducting the cooperative survey effort. The Corps provided survey equipment and boats necessary to conduct the surveys on the large lakes. Much of the survey work in shallow lake areas was conducted using canoes and jon boats provided by the Chippewa Bands.

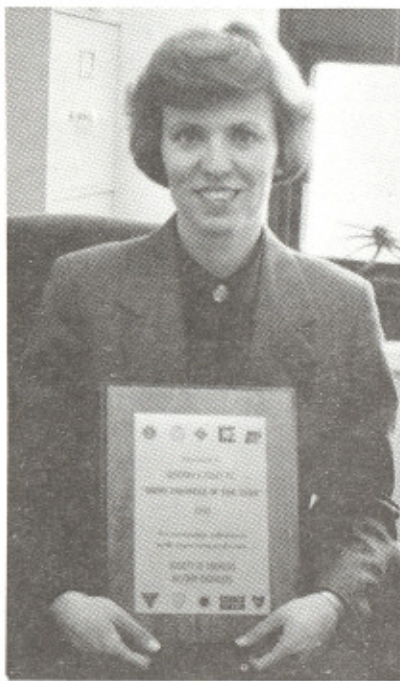
The survey work began in June and was completed near the end of August, before the wild rice harvest. Joe Green served as survey coordinator, and had the responsibility of arranging day-to-day logistics, setting up the survey locations on the lakes, data collection, and transferring data to topographic maps. Joe brought the survey results to the District office and assisted Environmental Resources Branch staff in interpreting the data.

Terry Birkenstock, District Geographical Information System (GIS) Coordinator, is currently entering the wild

rice survey data into the computer GIS. (See story, page four) The information will be used in conjunction with satellite imagery of the Headwaters area to generate maps of wild rice beds and to calculate acreage of rice beds accessible for harvest at various lake elevations.

The cooperation, assistance and enthusiasm of the Leech Lake and Mille Lacs Chippewa participants in the survey effort proved invaluable. The Indian survey crews demonstrated skill in poling canoes, and a thorough knowledge of the lakes. Joe Green's persistence, careful technical work, and good humour ensured that the survey work was successfully completed last summer.

The wild rice survey results will enable the District to make more informed decisions about water regulation for the Headwaters Lakes. In addition, the inventory and maps of the wild rice beds should prove valuable to the Chippewa Bands in managing their wild rice resources.



Deb Foley holds the plaque declaring her "Young Engineer of the Year" for the local S.A.M.E. The Tudor Award ceremony is scheduled in May. Story on opposite page.

We capture the news!

by Rick Gorr, IMO

Whenever the Corps of Engineers makes the news, the St. Paul District needs to be aware of the information reported to the public to react and respond appropriately. For the past several years, the Visual Information Office in IMO has been recording the local television news to keep the District apprised of Corps related issues.

The Visual Information Office has three video cassette recorders that record from a television set hooked up to an antenna located on the roof. The local newscasts on channels 4, 5, and 11 are recorded every day at 5:00, 6:00, and 10:00 p.m. and on Sundays at 5:30 p.m. The tapes are dated and indexed so that specific broadcasts can be easily reviewed. Programs are retained for three weeks before being used again.

Gathering local broadcasts that deal with public perception of the Corps enables the District, in some cases, to produce professional video products about critical issues. For example, chronological news items were spliced together to make a record, primarily for in-house use, of both the 1988 drought and the 1989 spring flood, two events that had substantial media coverage.

The capability to record the major local broadcasts can be an effective and important communication tool for District staff.

LQP Volunteer makes a big difference

By Jerry Cadwell
Public Affairs

Among numerous volunteer efforts benefiting the St. Paul District in 1989 were those of Paul Adams, a retired farmer and environmental hobbyist from Montevideo, Minnesota.

Since 1988, Adams has operated the district's "HydroLab Scout Transmitter" on the Lac Qui Parle Reservoir. From May 1st to November 1st, he samples water quality once a week from two locations on the long, shallow lake. Testing usually at 6 am and 4 pm, Adams supplies water quality coordinator Dennis Holme, ED-GH, with data concerning the water's PH level (shows biological activity), conductivity (reflects mineral concentrations), temperature (more oxygen is lost when the water is warmer), and most importantly, the change in dissolved oxygen.

Lac Qui Parle has a history of winter fish-kills, caused by poor oxygen supply, which occur about once every ten years. The information gathered by Adams helps Holme combat this problem. "He provides us with data that is very important to the Corps' monitoring the lake's water quality," says Holme. He adds that water quality information gathered by Adams will have a considerable affect on future improvements at Lac Qui Parle.

Adams is a member of the Lac Qui Parle Lake Association, a local group formed about four years ago in the interest of water quality at the lake. Curt Hanson, resource manager at Lac Qui Parle, says without the assistance of Adams and other volunteers, it is unlikely that this information about the lake would be obtained.

For their assistance and cooperation with the resource management program, the association was awarded a Plaque of Appreciation by the Corps in 1988.

As regional water conservation issues gain more and more attention, it's evident that cooperation between local groups and the Corps of Engineers is growing stronger. People like Paul Adams do much to add strength to this important effort.

Mississippi River Facts

Data as of 15 February:	1990	1989	1988
Combined releases from Headwaters	830*	2240*	1680*
Flow at St. Anthony Falls	2300	4030	3200 est.
Flow at L/D 2	3500	4200	3300
Flow at L/D 10	18000	23200	2400
Date Navigation Season Opened at L/D 2	N/A	31 Mar	21 Mar
Date Navigation Season Opened at L/D 10	N/A	13 Mar	12 Mar

* All figures in cubic feet per second

RAPE continued from page seven...

QUESTION: What should you do if you have been sexually assaulted in or near the building where you work?

- A. Go home and pull yourself together; then call the police.
- B. Immediately notify the police.
- C. Go to the nearest hospital emergency room.

ANSWER: B and C are correct. If you are the victim of an assault, you must get immediate medical attention for yourself. You may have abrasions, broken bones or other injuries. Do not shower or change your clothing, no matter how 'dirty' you feel. One reason for getting immediate medical attention is that to go to court, the police will need specific evidence taken under careful conditions. In addition, you should notify authorities without delay so they can look for your assailant. This will help protect others from being attacked. Afterwards, you may wish to contact a rape crisis center or a social services agency for emotional support and legal advice. The Ramsey County Rape crisis line is 612/298-5898.



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