Crosscurrents

US Army Corps of Engineers St. Paul District

Vol. 12 No. 4, April 1989



Native wildlife species such as giraffes were seen alongside the roads in Mikumi National Park, enroute to the village of Pommern.



Civil engineer Lori McIntyre (at left in a native 'kanga" skirt) recounts her experiences as a "volunteer engineer" in Tanzania, East Africa last January. Story on page 4.



Left: Women may walk several miles to fetch water for home use.

"Traveling early one morning after a rainy night, we spotted 4 overturned trucks with all wheels up in the air, and one water buffalo with all four hooves up in the air!"



Rather than repair this collapsed multiple box culvert, another bridge was built further downstream along this major roadway.



In This Issue

Permit Meetings	page 2
Stay in School	page 3
Water Quality Study	page 3
Tanzania	page 4
Park Rangers	page 6
Tax Tips	page 7
Prompt Payment Act	page 8
Safety Champion	page 8

400 Attend Permit Meetings

More than 400 farmers and local officials attended five public meetings held in early March to discuss the District's regulatory permit program.

The meetings were scheduled after public reponse to a public notice issued by the regulatory branch in December indicated a significant level of confusion and misunderstanding about the permit program by farmers in the western part of Minnesota.

Colonel Roger Baldwin, district commander, and Ben Wopat, chief of regulatory branch, conducted the meetings. Others district office attendees were Ed Bankston, office of counsel; Harold Taggatz, construction/operations; Paul Richert, regulatory branch; and Ken Gardner, public affairs.

In addition, a number of field employees attended meetings in their areas. They included Tim Bertschi, Western Flood Control Office; Dave Salberg, Lake Traverse; Curt Hanson, Lac Qui Parle Lake; and Jeff Koschak, Bemidji field office of the regulatory branch.



Most meetings were well attended by local citizens.



Colonel Baldwin and Ben Wopat talk things over with Bonnie McCarvel, aide to Sen. Durenberger.

The meetings consisted of presentations by Baldwin and Wopat, followed by a question and answer period. Baldwin explained that the proposed action outlined in last December's public notice was not intended to expand the Corps' regulatory authority, but would have made a simple ad-

ministrative change designed to streamline the permitting process. He further stated that the proposed action had been put on hold because of impending changes to the nation-

wide permit program that are currently being considered by the Corps' Washington office.

Wopat presented background on the permit program and explained the Corps'jurisdiction over the filling of wetlands and the maintenance of agricultural ditches, two of the key regulatory issues affecting western Minnesota farmers.

Each meeting generated spirited discussion and questions. Some farmers expressed their frustration with the confusion that resulted from the different types of regulatory jurisdiction being exercised by varying federal, state and local agencies. Others disagreed with the basic requirement to obtain permits before filling wetlands on their own property.



Corps employees Paul Richert (CO-R), Ed Bankston (OC), Jeff Koschak (CO-RF) and Roland Gullekson, President of the Sand Hill River Watershed District.

The meetings provided an opportunity for farmers and local officials to discuss the many issues arising from the permit program with district representatives. Following each two hour meeting, the district team remained at the meeting site for the purpose of discussing technical or site-specific information with local individuals.



Ben Wopat (CO-R) explains the finer points of the permit program during the public meeting.

Use Form 1040X To Correct Errors

Conversations this time of year often focus on income tax. Quite often these conversations lead to the realization of errors made on tax returns—forgotten income not reported, allowable credits or deductions not taken or credits and deductions taken in error.

Don't panic. These errors on returns already filed can be corrected by filing an amended return on Form 1040X, "Amended U.S. Individual Income Tax Return."

Form 1040X can be used to correct any previously filed Form 1040, 1040A or 1040EZ. Generally, Form 1040X must be filed within three years from the date the original return was filed or within two years from the date the tax was paid, whichever is later, according to the IRS.

It is not necessary to file an amended return to correct arithmetic errors. These are automatically corrected by computers at IRS service centers when the returns are processed. It is also not necessary to file an amended return if a required schedule was not submitted. If this is the case, IRS will write the taxpayer to request the schedule or attachment.

Dependent Social Security Numbers

Taxpayers claiming a dependent who is at least 5 years old must include that dependent's taxpayer identification number on their return. For most individuals, this number is their Social Security number.

If the dependent has a Social Security number, but the taxpayer does not know what it is, the taxpayer should contact a local Social Security Administration office.

To get a Social Security number, a dependent must have evidence of: (1) date of birth, (2) U.S. citizenship or legal alien status and (3) identity. A public, hospital or religious birth record is generally sufficient for the first two items. A school record and certain other documents can be used for proof of identity.

Many taxpayers filing as head of household have been needlessly delaying their tax refunds by forgetting to list the names of qualifying dependents or children.

To file as a head of household, a taxpayer must be unmarried or qualify to file as unmarried, and provide more than half the cost of keeping up a home that is the principal home of the taxpayer and the taxpayer's unmarried child (who may be either a dependent or not) or a married child who must be the taxpayer's dependent.

Other qualifying relatives, such as an uncle, sister, niece or son-in-law, must be the taxpayer's dependents and actually live with the taxpayer the entire year. The taxpayer's dependent parents, however, may qualify even though they do not live with the taxpayer. The taxpayer must have paid more than half the cost of keeping up their home to qualify for head-of-household filing status.

To be considered unmarried, the IRS says, one must be single, legally separated, divorced, married but living apart for at least the last six months of the tax year or widowed. Without a child or qualifying dependent, unmarried taxpayers are not eligible to file as head of household, and if they do not qualify as a surviving widow or widower with a dependent child, they must file under the single status.

"Last Chance" Tax Tips

Extension of Time To File Available

Taxpayers who file Form 1040 or Form 1040A can request an automatic four-month extension of time to file their federal income tax returns.

To obtain the four-month extension beyond April 17, 1989 (this year, taxpayers get a two-day break because April 15 falls on a Saturday), taxpayers must complete Form 4868, "Application for Automatic Extension of Time to File U.S. Individual Income Tax Return," and forward it by April 17, 1989, to the Internal Revenue Service center processing returns for their area. Service center addresses are listed in the instructions to Form 1040 and Form 1040A.

The IRS stresses, however, that the Form 4868 does not extend the time to pay the income tax.

On Form 4868, taxpayers should make an estimate of the year's taxes and submit any balance due with the form. If the unpaid tax is more than 10 percent of the total tax due, a penalty will be assessed for the underpayment unless the taxpayer can show reasonable cause for not paying the tax when due. Interest is also assessed on any unpaid balance.

Taxpayers filing Form 1040EZ and those requesting the IRS to compute their tax are not eligible for automatic extensions. Also, taxpayers under a court order to file tax returns by the regular due date are not eligible for extensions.

Once again, those numbers are:

For tax assistance in the Twin Cities, call

291-1422

For tax assistance in North
Dakota, South Dakota, Iowa,
Wisconsin and outside the Twin
Cities in Minnesota, call
1-800-424-1040

Labels, Envelopes Speed Refunds

Many delays in the processing of federal income tax returns could be avoided if taxpayers used the labels and envelopes that accompany their tax packages.

The peel-off label, which contains the taxpayer's name, address and Social Security number, is designed to expedite accurate processing at IRS service centers and thus avoid delay in the issuance of a refund check.

The IRS advises taxpayers to use the label, even if corrections are necessary. For example, in the case of a change of address, the correction should be made directly on the label. Persons who use tax preparers need to furnish them with the peel-off label for use on their return.

One of the most common troublesome errors that using the label can avert is listing an incorrect or illegible Social Security number. This is a major cause of delayed refund checks.

The coded, pre-addressed envelope ensures that the return is sent to the proper IRS service center. Once the envelope reaches there, the coding ensures speedy entry into the processing system.

Taxpayers should make sure that they use the proper postage when mailing their returns. Most returns require one first-class stamp; however, thicker returns, usually containing more than four items (that is, Form 1040 and three attachments) require additional postage. Returns to taxpayers for more postage will not be considered timely filed even if they are originally mailed by April 17.

Double-Check— Increase Accuracy

To those expecting a tax refund this year, the Internal Revenue service says an errorfree return speeds processing time. A quick check for accuracy can help avoid mistakes; and a carefully prepared, easy-to-read return can be processed faster.

Once the return is completed, taxpayers should consult the following check list:

- □ Have you attached all your Forms W-2, "Wage and Tax Statements"?
- Have you attached all the supporting schedules to your Form 1040?
- Are your name and Social Security number on each schedule?
- Are the names and Social Security numbers of dependents 5 years or over on your return?
- □ Is your arithmetic correct?
- ☐ Are all of your entries on the proper lines?
- If you rounded off your numbers, did you round off consistently?
- ☐ Is your handwriting legible?
- When you used the Tax Table, did you follow the line across to the correct column for your filing status?
- Did you sign and date your return? Remember, if it's a joint return, your spouse must sign, too.
- Did you use the peel-off label, and is the information on the label correct?
- Have you made necessary corrections right on the peel-off label?
- Did you make a copy of your return for your records?
- Did you put the correct postage on the preaddressed envelope? If the return has several attachments, additional postage may be required.

Contract Law Note: The Prompt Payment Act Amendments of 1988

By MAJ Mellies, <u>The Army Lawyer</u>, January 1989

Introduction

Congress has recently amended the Prompt Payment Act (PPA). The amendments are significant and will require changes to the policies and procedures contained on Office of Management and Budget (OMB) Circular A-125, "Prompt Payment", and the Federal Acquisition Regulations (FAR) implementation at subpart 32.9. This note will highlight some of the major changes to the Act.

Receipt of Invoices and Return of Defective Invoices

In order to clarify when the payment period starts, which determines the payment due date and the date upon which an interest penalty begins to accrue, Congress has es-

tablished more specific criteria for determining when an agency has received an invoice from the contractor. An agency is now deemed to have received an invoice on the latter of: 1) the date on which the person or place designated by the agency to first receive such invoice actually receives a proper invoice; or 2) on the seventh day after the property is actually delivered or services are actually completed, unless the property or services have been accepted prior to the seventh day or the contract specifies a longer acceptance period. The 1988 amendments also provide that the agency is deemed to have received an invoice on the date of mailing if the agency fails to annotate the invoice with the date of receipt.

The 1988 amendments also reduce from fifteen days to seven days the time available for an agency to return a defective invoice to a contractor, and require the agency to specify the defects. The payment period is reduced by the number of days the agency exceeds the seven days.

Elimination of Interest Penalty Grace Period and Additional Penalties

Prior to the 1988 amendments the Prompt

Payment Act provided that the government was not subject to an interest penalty unless it failed to make payment within fifteen days after the payment date. The amendments eliminate this grace period. The late payment interest penalty will now accrue from the day after the payment date.

In addition to the elimination of the grace period, the amendments subject the government to an additional penalty if the government is delinquent in making an interest penalty payment. The government is subject to an added penalty if it fails to pay the interest penalty within ten days after it makes a late contract payment to the contractor, and the contractor makes a written demand for the penalty within forty days after the date the payment is made.

Effective Dates of the Amendments

The additional penalty requirement shall apply to payments under contracts awarded on or after October 1, 1989.

All of the other additions and changes to the PPA discussed on this note shall apply to payments under contracts awarded, renewed and contract options exercised during the third fiscal quarter of this fiscal year.

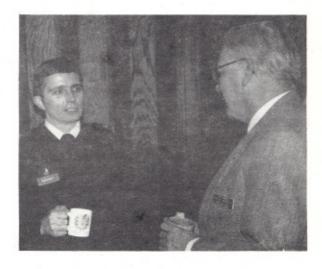
Safety Champion of the Year

By Ron Scott, Safety Officer

Yes, there really will be such as person designated for 1989. North Central Division has recently inaugurated a new safety award program and, after considering nominees from all districts in the division, one "Safety Champion" for the entire division will be selected, with huge kudos and other benefits bestowed in vast abundance. Basically the award will focus on individual contribution to the safety program which results in either improving safety awareness or improving the work environment.

While the side benefits are beyond measure, the award will consist of a certificate and a plaque. Your nomination may be submitted to the district safety office by 1 October, and should consist of the basic facts concerning the individual nominated, as well as a write-up on what you feel the significant safety achievements are. We know that somewhere out there our safety champion is advancing the safety program. Now is the opportunity for recognition. Send those nominations in!!

Major Mike Mahoney, incoming Deputy District Engineer, chats with Stan Kumpula, assistant chief of engineering division, during a visit to the district in March. Mahoney will assume this position in July.





Lori McIntyre, civil engineer in the geotechnical design section tells 4th graders at the J. J. Hill elementary school how she became an engineer. The presentation was part of a "Women in the Sciences" study unit.

"I Was A Teenage Stay-In-School"

by Marianna Brown Public Affairs

Just before I graduated from high school two years ago a counselor suggested that I try for a job with the Corps of Engineers to earn some money for college. As broke as I was, I tried for the job, though I had



never heard of the Corps. That was about two years ago, and here I am still working for the St. Paul district and loving it. As a college-bound student, I was hired under the stay-in-school program. The stay-in-school program helps high school and college students by giving them jobs that helps them pay for college and its expenses and lets them gain valuable experience to use later in life. As the program title suggests it also encourages students to "stay in school."

Stay-in-school students do a wide variety of jobs around the St. Paul District. I work in the public affairs office myself. Although my title is a clerk-typist, I do many different tasks. Not only do I type and file, but I answer most general information calls from the public. It is me they first talk to when dealing with the St. Paul district. I also create the twelfth floor display, organize the state fair volunteers, distribute all news clips, substitute for the executive office secretaries, and organize and maintain paper files and computer files. I never know what new thing I'll be doing each day. Tomorrow I may be taking pictures for Crosscurrents, fielding calls from the media, or running to get a last minute slide for the Colonel's speech.

Working for the St. Paul district has turned out to be the best job for me while I am attending college in Missouri. My schedule is flexible enough that I can come back to the Twin Cities and know I have a job this summer, and also work for two or three weeks on vacations from school. If I decide to attend school in the Twin Cities area next year, I could work 20 hours a week during the school year. Without this income it is doubtful that I would be able to attend school at all.

Drought Provided Opportunity for Water Quality Study

The drought of 1988 brought significant challenges to the St. Paul District in terms of preparing proper responses to the many and diverse requests and needs of the public and other managing agencies. It also provided an opportunity to collect data on water quality conditions in the basin, otherwise difficult to obtain.

Dennis Holme, district water quality coordinator, stated that "the extended drought of 1988 presented an unprecedented opportunity to study the river under extreme low-flow conditions during a long period without significant rain or runoff". With the assistance of the Corps Waterways Experiment Station (WES) in Vicksburg, the district conducted a water quality monitoring study on the Mississippi River from Lock and Dam 2, north to Grand Rapids in the Headwaters area.

"The district hopes that this study will provide information on the effects of the drought on basic characteristics of the river system. We also hope that the study might suggest ways that dam operation could be altered to improve water quality through aeration or flow augmentation from the Headwaters reservoirs.", stated Holme.

"Even before the study began, however, time was a problem. We needed to get many people in the field in a short time and then get the samples to a laboratory quickly. The district lacked the personnel in-house, and contracting the work to an outside laboratory would take too long."

Consequently, the district turned to WES for help.

"Within a matter of a few days", Holme said, "WES had prepared a study and was in the field—on the river—sampling." The key to a successful study was to sample the channel before it filled with new runoff and to get the samples to the laboratory before they broke down.

Dr. John Barko of WES, principal investigator for the study, along with Butch Eakin, from the WES laboratory at Eau Galle, conducted the sampling in pools 1 and 2. With the assistance of district project operations staff and Bill James of Vicksburg, Holme conducted sampling from Monticello, Minn., up to Grand Rapids. The sampling involved water quality probes that tested for dissolved oxygen, pH (the measure of acidity or alkalinity), conductivity and temperature. The laboratory tested water samples for chlorophyll a (a pigment that indicates the presence of algae or other green plants), ammonia, soluble reactive phosphorus and total organic carbon. The rains of August changed the water system, thereby cutting the study short.

The effort involved good cooperation between the divisions of planning, engineering and construction-operations. Data collected will be used in an FY 89 instream flow study, which will attempt to establish objectives or criteria for minimum flow in the channel for river biological communities. The information may also prove useful in other continuing water quality studies for dam operation and dredging and for future feasibility studies for new projects

Teenage Stay-In-School, Continued

I have learned much more that I expected when I first got this job. Since then I have learned much about the district and the structure of government agencies that an outsider would never see. Since I am a computer science major I've been getting hand-on experience with computers that I would not learn in the class room. Through being in contact with Corps employees and the public I have learned how to work with people in all sorts of

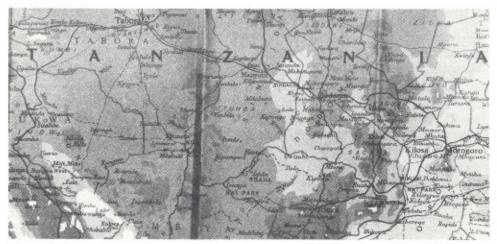
situations. I have met many interesting and supportive people and they helped me become more confident of myself and of my abilities. It's very rewarding to help out Corps employees while they at the same time help me improve myself and attend college. When I get my degree in a few years I will certainly consider working for the government.

Editor's Note: Marianna will be returning for her third summer in June.

Some Observations on Engineering Challenges in a Developing Country

(Or how I spent three weeks of annual leave and \$3000)

By Lori McIntyre, Civil Engineer Geotechnical Design Branch Engineering Division



The rural village of Pommern lies southeast of Iringa. Pommern is not "on the map" due to its diminutive size, but Iringa may be seen in the lower central portion of this map of Tanzania.

While some of you were scraping ice off of your car windows and shoveling snow off of your sidewalks in Minnesota in January, I was dodging malaria laden mosquitos and potholes the size of small craters in a rural area of Tanzania in East Africa. Traveling with a group of 12 from the Twin Cities area under the auspices of the Global Volunteer organization, our mission was to work with and learn from villagers in Pommern, a two day drive from the coastal capital of Dar es Salaam (Haven of Peace).

Tanzania is considered one of the poorer countries in the world, second to Bangladesh. The topography ranges from broad flat plains to rugged mountain ranges, with 2/3 of the country lying above

5000 feet in elevation. It is known for its game parks, spectacular scenery, Olduvai gorge and Mount Kilimanjaro. The existence is primarily agrarian with a day to day subsistence. The climate along the coast is hot and humid; inland is cooler, and damp

during the January to June rainy season.

The background of our group included medical people (retired and active), an artist, an actress, a computer programmer, a retired teacher, and (me) a civil engineer. Our assignments ranged from working with the personnel in a small rural medical clinic to building desks and chairs for a proposed local secondary school. I was recruited to provide advice on rural road maintenance and upgrading the village water supply system.

'I was recruited to provide advice on rural road maintenance and

upgrading the village water supply system."

Transportation System

The drive from the capital inland took us across one of the main roadways of the country's transportation system. The width of the road

barely accommodated two vehicles passing in opposite directions when the entire surface was intact. However, more commonly found were road surface failures which had deteriorated into loss of pavement and subgrade, resulting in holes large enough to swallow a vehicle or two!

Without striping on the road, most vehicles tended to occupy the center of the road and play daredevil with an oncoming vehicle, until only seconds remained for one to attempt to pull out of the way without running off the road or into a pothole. Due to cooler temperatures at night, heavy truck and bus traffic made for an exciting, if nerve-racking adventure as a constant stream of headlights appeared to be near miss head-on collisions. Traveling early one morning after a rainy night, we spotted 4 overturned trucks with all wheels up in the air, and one water buffalo with all four hooves in the air.

With little funds available for road maintenance and no apparent control over highway loading, sections of this highway may deteriorate to the point of severly limiting the highway's function as a main roadway in the country.

The condition of the unpaved, unsurfaced and unengineered rural roads also left something to be desired, although less traffic and slower speeds resulted in less exciting travel. It appeared that the rural road system began as paths traveling over-



This road surface, with its massive ruts, was the typical road condition found in Tanzania.

"I Was A Teenage Stay-In-School"

by Marianna Brown Public Affairs

Just before I graduated from high school two years ago a counselor suggested that I try for a job with the Corps of Engineers to earn some money for college. As broke as I was, I tried for the job, though I had



never heard of the Corps. That was about two years ago, and here I am still working for the St. Paul district and loving it. As a college-bound student, I was hired under the stay-in-school program. The stay-in-school program helps high school and college students by giving them jobs that helps them pay for college and its expenses and lets them gain valuable experience to use later in life. As the program title suggests it also encourages students to "stay in school."

Stay-in-school students do a wide variety of jobs around the St. Paul District. I work in the public affairs office myself. Although my title is a clerk-typist, I do many different tasks. Not only do I type and file, but I answer most general information calls from the public. It is me they first talk to when dealing with the St. Paul district. I also create the twelfth floor display, organize the state fair volunteers, distribute all news clips, substitute for the executive office secretaries, and organize and maintain paper files and computer files. I never know what new thing I'll be doing each day. Tomorrow I may be taking pictures for Crosscurrents, fielding calls from the media, or running to get a last minute slide for the Colonel's speech.

Working for the St. Paul district has turned out to be the best job for me while I am attending college in Missouri. My schedule is flexible enough that I can come back to the Twin Cities and know I have a job this summer, and also work for two or three weeks on vacations from school. If I decide to attend school in the Twin Cities area next year, I could work 20 hours a week during the school year. Without this income it is doubtful that I would be able to attend school at all.

Drought Provided Opportunity for Water Quality Study

The drought of 1988 brought significant challenges to the St. Paul District in terms of preparing proper responses to the many and diverse requests and needs of the public and other managing agencies. It also provided an opportunity to collect data on water quality conditions in the basin, otherwise difficult to obtain.

Dennis Holme, district water quality coordinator, stated that "the extended drought of 1988 presented an unprecedented opportunity to study the river under extreme low-flow conditions during a long period without significant rain or runoff". With the assistance of the Corps Waterways Experiment Station (WES) in Vicksburg, the district conducted a water quality monitoring study on the Mississippi River from Lock and Dam 2, north to Grand Rapids in the Headwaters area.

"The district hopes that this study will provide information on the effects of the drought on basic characteristics of the river system. We also hope that the study might suggest ways that dam operation could be altered to improve water quality through aeration or flow augmentation from the Headwaters reservoirs.", stated Holme.

"Even before the study began, however, time was a problem. We needed to get many people in the field in a short time and then get the samples to a laboratory quickly. The district lacked the personnel in-house, and contracting the work to an outside laboratory would take too long."

Consequently, the district turned to WES for help.

"Within a matter of a few days", Holme said, "WES had prepared a study and was in the field—on the river—sampling." The key to a successful study was to sample the channel before it filled with new runoff and to get the samples to the laboratory before they broke down.

Dr. John Barko of WES, principal investigator for the study, along with Butch Eakin, from the WES laboratory at Eau Galle, conducted the sampling in pools 1 and 2. With the assistance of district project operations staff and Bill James of Vicksburg, Holme conducted sampling from Monticello, Minn., up to Grand Rapids. The sampling involved water quality probes that tested for dissolved oxygen, pH (the measure of acidity or alkalinity), conductivity and temperature. The laboratory tested water samples for chlorophyll a (a pigment that indicates the presence of algae or other green plants), ammonia, soluble reactive phosphorus and total organic carbon. The rains of August changed the water system, thereby cutting the study short.

The effort involved good cooperation between the divisions of planning, engineering and construction-operations. Data collected will be used in an FY 89 instream flow study, which will attempt to establish objectives or criteria for minimum flow in the channel for river biological communities. The information may also prove useful in other continuing water quality studies for dam operation and dredging and for future feasibility studies for new projects

Teenage Stay-In-School, Continued

I have learned much more that I expected when I first got this job. Since then I have learned much about the district and the structure of government agencies that an outsider would never see. Since I am a computer science major I've been getting hand-on experience with computers that I would not learn in the class room. Through being in contact with Corps employees and the public I have learned how to work with people in all sorts of

situations. I have met many interesting and supportive people and they helped me become more confident of myself and of my abilities. It's very rewarding to help out Corps employees while they at the same time help me improve myself and attend college. When I get my degree in a few years I will certainly consider working for the government.

Editor's Note: Marianna will be returning for her third summer in June. land which, through erosion and traffic, evolved into a template resembling a channel. This is exactly the function the road served during rainfall, draining not only the road surface but frequently the adjacent farmland. Low areas where water tended to pond became impassable early on in the rainy season. During January of this year early rains and impassable roads prevented thousands of tons of crops from reaching the market resulting in a loss of thousands of schillingi (the local currency).

Village Water System

The water system which serves Pommern and several other neighboring villages consists of a gravity system originating at a surface impoundment at the upstream end of a watershed. Water service was not available in the homes, but at centrally located community water taps. There,



The central water tap for Pommern and neighboring villages.

women collect water in five gallon buckets to carry home on their heads, often up to several miles away. Of the taps that I observed, all were either running continuously or not functioning at all.

In an area where even the materials and skills to maintain a faucet were not available, the practicality of converting the village water system to a potable system, either through treatment of the surface water or conversion to a groundwater system requiring power, seems a remote possibility far off into the future.

Education

Primary education is currently required by law in the country, which usually means students of 8 to 10 years of age attending school for three years. Education beyond primary is next to impossible to achieve due to extreme shortage of secondary schools.

This limited number of slots in the secondary schools results in a bottlenecking, with hundreds of students attempting to qualify.

The primary school in Pommern consisted of bare classrooms with rough wooden benches, maybe a blackboard and a very valued piece of chalk. No books, no pencils, no paper, no computers... just teachers and students who also take two hours out of their school day to hoe in school owned fields, to help defray the cost of their education.

I met a teacher in the village who claimed to be a civil engineer. In talking with him, I discovered that his background consisted of a six month plumbing course in a technical school. He was currently teaching brick laying and architectural drawing with no books, no pencils, no drafting supplies. It wasn't surprising to learn that he only had one or two students, due to lack of

interest in a program with so little to offer.

Acquiring education beyond the primary level is difficult enough, to say nothing of pursuing additional technical or university level academic training. Even if one is fortunate enough to beat the odds to make Crosscurrents is an unofficial publication authorized under the provisions of AR 360-81. It is published monthly by offset for the St. Paul District, U.S. Army Corps of Engineers. Editorial views and opinions are not necessarily those of the Corps of Engineers or the Department of the Army. Deadline for submitting articles is the 10th of each month preceding publication.

Address: Editor, Crosscurrents, U.S. Army Corps of Engineers, 1421 U.S. Post Office and Custom House, St. Paul, Minn. 55101-1479.

District Engineer	Col.	Roger	Baldwin
Chief, Public Affairs		Ken	Gardner
Editor		.Joan	Guilfoyle

it that far, the possibility of finding a professional level position is not likely.

I was the first engineer to visit Pommern with Global Volunteers in its seven visits the past two years. Although I wasn't able to mobilize an effort to tackle any hands-on road maintenance or water system work, I will be writing a report documenting my observations. Hopefully my comments and suggestions for some simple road maintenace and water system projects can be used as a foundation for future Global Volunteer visits and projects to be taken on by the local villagers.

"Of the taps that I observed, all were either running continuously or not functioning at all."



Students and teachers work in the fields each day to help pay for their education. The fields are owned by the schools.

What Do Rangers Do?

By Bob Espenson Park Ranger at Gull Lake

Rangers at Gull Lake are often asked this question so I thought I might try to describe a ranger's job at Gull Lake.

During the recreation season, rangers patrol the campgrounds and day use areas over a period of eighteen hours a day. Patrols are made on foot or bicycle or in a truck depending on weather, time available, time of day and the type of situation likely to be encountered. Person to person contact between rangers and visitors usually leaves the visitors with increased understanding and respect for the Corps, so foot patrols are preferred when time allows. While on patrol rangers watch for illegal, unsafe or inappropriate behavior, unsafe conditions and other items needing attention. During campground patrols, rangers also collect camping fees and issue permits.

Hand in hand with ranger patrols,
"visitor assistance" may take many forms.
Giving directions to lost travelers, providing first aid to the injured or ill, helping new campers with their equipment, giving young anglers a few tips, and directing traffic during times of peak usage are a few examples of how we assist our visitors.

A large part of park management involves upkeep of the grounds and facilities that we manage. With the move to "privatization" much of this work is contracted out. However, rangers help plan, supervise, and perform some of the maintenance and improvement work at the project. This may include cutting and planting trees,

laying sod, planting shrubs and grass seed, installing and removing docks and buoys, installing signs and maintaining the dam.

Interpretation is another ranger responsibility in the Headwaters. Here efforts have been limited, but are growing now that we have fewer maintenance responsibilities. During the summer season, rangers at Gull Lake conduct water safety demonstrations and show nature movies on weekends. During spring and fall, we invite fifth and sixth graders from neighboring schools to spend a day at the project. While here, the children learn and practice compass reading, identify trees, learn about dams, and participate in other activities that we have planned for them.

Due to the relatively small amount of Corps land at

Headwaters projects, natural resource management duties are limited. At Gull Lake, rangers work with local organizations to build and install Wood Duck houses at suitable locations around the reservoirs.

suitable locations around the reservoirs. Rangers take weekly secchi disk readings on the reservoirs for the Minnesota Pollution Control Agency and participate in various wildlife surveys for the Minnesota Department of Natural Resources. When soil erosion or compaction occurs on Corps property we decide the best way to correct it, and if possible, do it ourselves.

Although recreation and resource management are our primary responsibilities, our duties involve much more than this. Rangers at Gull Lake share in nearly all the administrative duties such as keeping records of weather, hydrologic and visitation



Bob Espensen, Park Ranger at the Headwaters reservoir Gull Lake.

data, energy and postage stamp use, fees collections and activities that occured at the project. Other routine administrative duties include preparing and routing forms such as requisitions, purchase orders, receiving reports and payment documents. Finally, at Gull Lake, rangers also assist with duties involving property control, personnel management and budget preparation.

As you can see, working at Gull Lake is never dull. The wide variety of duties, mix of indoor and outdoor work and the opportunity to meet people, provide enormous job satisfaction.



Jim LuMaye, Park Ranger at Gull Lake, presents an interpretive program for lake visitors, one of the many "other duties as assigned" for Park Rangers.

Want Free
Tickets to
Minnesota
Timberwolves
Basketball
Games???
Stay tuned!

