



US Army Corps
of Engineers
St. Paul District

Crosscurrents

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Dredge Thompson completes dry dock at Memphis District



Photo courtesy Memphis District

The St. Paul District's dredge *William A. Thompson* traveled over a thousand miles from its home port at Fountain City, Wis., to the Memphis District's Ensley Engineer Yard (above) in Memphis, Tenn., for repairs. At left is Dave Peck, Master of the *Thompson*, with Ricky Schoaf, maintenance foreman at Ensley. The *Thompson*, built in 1936, is the only Corps-owned cutterhead dredge. It normally does channel mainte-

nance work on the Upper Mississippi River, working from St. Paul to as far south as St. Louis. It also works on the Illinois, Missouri and St. Croix Rivers. The *Thompson* finished dry dock with a new propeller shaft, new steel plating on the hull, plus other repairs. The *Thompson* headed home on March 23. Full story on page 4.

District gathers at Ft. Snelling State Park for awards picnic

The 1994 Corps Day Awards Ceremony and Picnic is scheduled for June 24 at Ft. Snelling State Park. The park entrance is located at Highway 5 and Post Road on the first exit west of the Minneapolis-St. Paul airport. General activities begin at 10 a.m. Lunch is at noon with awards presented after lunch. The longer you wait, the more tickets cost. For tickets, on the eighth floor, see Mary Kay Linder or Mary Clarkson; on the sixth floor, see Jan Graham or Joyce Johaneck. Retirees, call Jan Graham at 612-290-5305. Ticket dates and prices are:

	Until May 31	June 1-17	June 20-24
Adult	\$4	\$4.50	\$5.50
Adult, BYOF*	1	1.50	2.50
Child, 6-12	2.50	3	4
Child, 6-12, BYOF	1	1.50	2
Child, under 5	1	1.50	2
Child, under 5, BYOF	.50	1	1.50

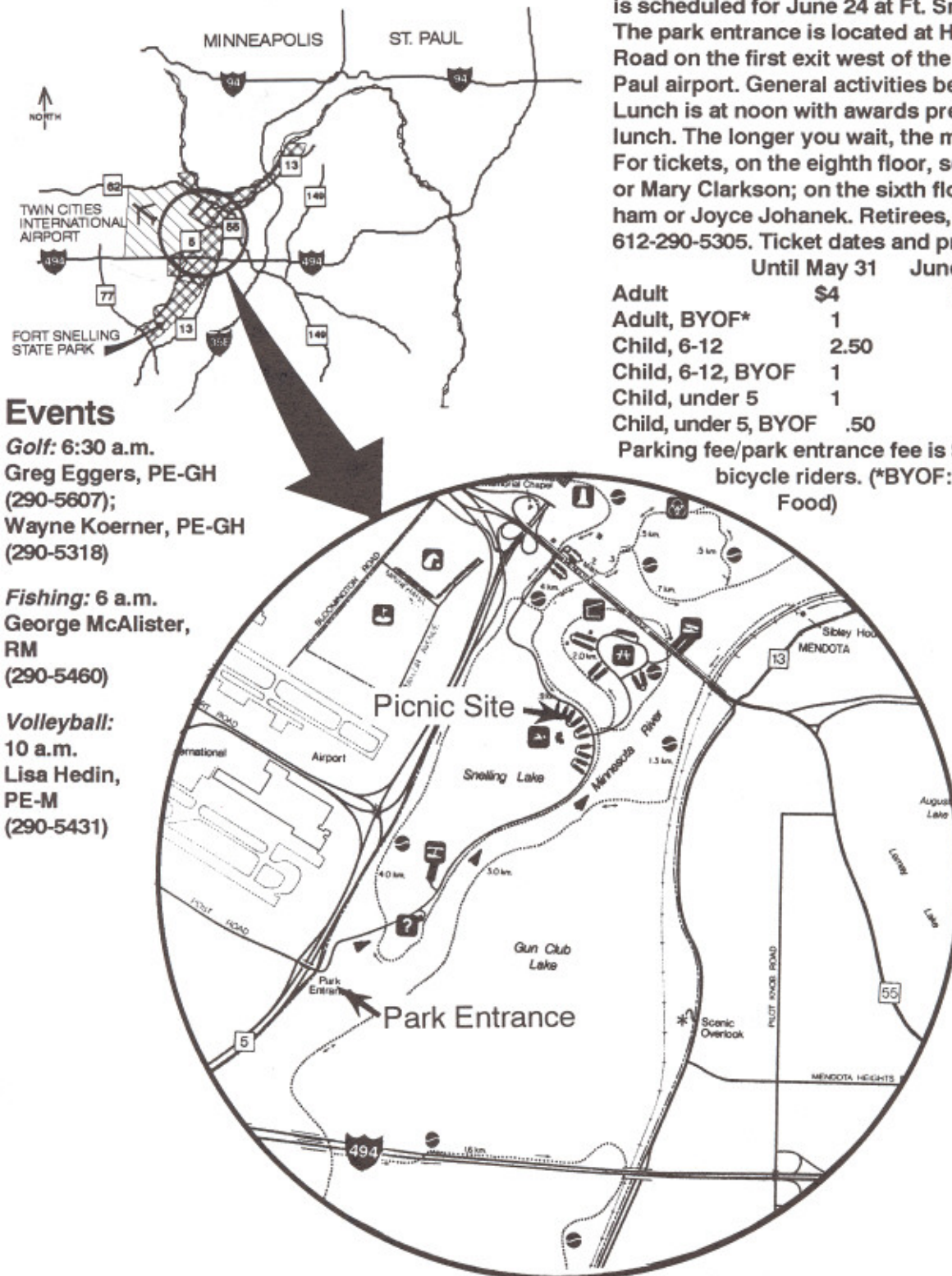
Parking fee/park entrance fee is \$2. No fee for bicycle riders. (*BYOF: Bring Your Own Food)

Events

Golf: 6:30 a.m.
 Greg Eggers, PE-GH
 (290-5607);
 Wayne Koerner, PE-GH
 (290-5318)

Fishing: 6 a.m.
 George McAlister,
 RM
 (290-5460)

Volleyball:
 10 a.m.
 Lisa Hedin,
 PE-M
 (290-5431)



Corps Day Message from Gen. Williams

In peace and in war, Corps people serve America well

This has been a year of self-examination for both the Corps of Engineers and for the Army. During this past year, Gen. Gordon R. Sullivan, Chief of Staff of the Army, put forth a Vision Statement to guide the Army through the reductions which lie ahead for our military.

The Army's Vision states: "America's Army, trained and ready, a strategic force serving the nation at home and abroad, capable of decisive victory into the 21st century."

History illustrates the penalties for not having such a vision. The historic pattern for America's armed services is to build up a powerful force to win a war, followed by reductions until the next military threat, then a scramble to build up again. The world is too complex, too dangerous and too uncertain for our nation to allow that pattern to occur again.

The Army Vision is a statement of pride, determination and purpose to scale down our force intelligently.

The Corps of Engineers' Vision reflects the Army Vision. Our vision to be "a vital part of America's Army, proud of our past, building for the future, providing quality, responsive, engineering services to support the nation in peace and war."

Like the Army Vision, the Corps' Vision voices determination and looks to the future, but adds the pride we feel in our past.

For 219 years, Corps people have served America well, and this past year was no exception.

When devastating floods swept across the Midwest last summer, Corps people performed heroic work. I visited a warehouse in St. Louis District where a handful of Corps employees had distributed more than 15 million sandbags, working

"When devastating floods swept across the Midwest last summer, Corps people performed heroic work."

'round-the-clock, seven days a week. The foreman had lost his home early in the flood, yet he was there issuing sandbags so others could continue fighting the flood.

The day after an earthquake hit Guam, Corps employees were back at work amid broken bookshelves, fallen acoustic tiles and shattered glass.

When an earthquake devastated Los Angeles last January, more than 300 Corps engineers were there to inspect damage.

They did their jobs well, but their involvement went far beyond engineering. They listened to victims' survival stories, reassured them, and personally shared the burden of their losses.

The sandbag foreman helping others fight even though his own battle was lost, the folks at work in a damaged office, and those engineers helping survivors cope with the earthquake, are the kind of people we have in the Corps of Engineers.

The Corps also had many volunteers in Saudi Arabia and Kuwait during the Persian Gulf War.

Corps employees have proven themselves in war and peace, and continue to train for future contingencies. About 75 Corps people have volunteered for the Contingency Real Estate Support Team, a group which can deploy to any trouble spot within 24 hours to provide real estate support to American forces.

The people in the Corps of Engineers have a long and proud tradition of serving the Army and the nation in both peace and war, and it is clear they are committed to continue that service in the future.

Essayons!

Arthur E. Williams
Lieutenant General, USA
Commanding

St. Paul dredge crew thinks Ensley is tops for repairs

Putting the dredge William A. Thompson on blocks in Memphis District

The following article on the dredge William A. Thompson is reprinted with permission from the *Memphis District's March 1994 Riverwatch*.

The St. Paul District's dredge *William A. Thompson* traveled over a thousand miles from its home port at Fountain City, Wis., to Ensley Engineer Yard (in Memphis, Tenn.) for repairs. But the master and crew believe the trip was worthwhile.

The nearly 60-year-old *Thompson* came to Ensley to have a variety of repairs done. Jim Dodds, a machinist in Ensley's Machine Shop, worked on repairs to the dredge's propeller shafts. He replaced large brass sleeves that had been part of the shafts since 1936, with new, more durable nickel-chrome-boron alloy sleeves. Workers heated each \$700 sleeve to between 700 and 800 degrees, then slid them into place on their shafts. When the sleeves cooled, they shrank to fit like they were part of the original shaft.

"Heat-shrinking sleeves is a pretty common procedure," Dodds said, "but this is the first time I've done it on a navigation shaft like this." Dodds and other machine shop employees heat-shrank a total of eight sleeves in this manner.

While work like this was being done in the Machine Shop, the *Thompson* itself was up on blocks in Ensley's huge dry dock. Repairs to the vessel's hull plates presented some unique challenges for Ensley's

welders. The *Thompson's* hull is made of solid wrought iron, not steel plates as are common in ship building today. Some areas of the hull had worn so thin that a serious safety hazard existed. The affected areas of the hull had to be cut out and replaced with steel plating.

Terry Phifer and his welders consulted with industry experts on the best way to join the steel plating to the wrought iron hull. Once they removed the old section of the hull, workers ground the edges of the hole to a slight bevel. Workers then placed a thin bead from a high quality steel welding rod around the beveled edge. They welded the replacement steel plate to this edge for a strong bond.

Lee Blank, the *Thompson's* chief engineer, kept a close eye on this and other work done on his vessel at Ensley. "You guys got a real good metal shop here," he said, "and real good personnel that run it."

The *Thompson*, built in 1936, is the only Corps-owned cutterhead dredge. It normally does channel maintenance work on the Upper Mississippi River, working from St. Paul to as far south at St. Louis. It also works on the Illinois, Missouri and St. Croix Rivers.

During last year's Midwest floods, the *Thompson* helped plug holes in levees near the community of Canton in northeast Missouri.

Master Dave Peck also likes the way Ensley does business. He said the

bids by commercial firms for work on the *Thompson* were extremely high. Because of the potential cost savings and the availability of the Ensley dry dock, officials decided Ensley was the best place to have the work done.

"Everybody here has just been fantastic," he said. "We've been getting all the help we need, especially since we found this problem with the hull."

According to Peck, writing a contract for a dry-dock period is very difficult, because you can never be sure what you will find once you're up on the blocks.

"By using a Corps facility, we can make any repairs we encounter as needed. We had to pull our (propeller) shafts unexpectedly. The people in your Machine Shop were able to tell us what we needed, and what they could do. Your folks are even going to supply us with a pilot for our return trip as far as Cairo."

The *Thompson's* dry dock period at Ensley was a great success. It provided an excellent opportunity for our two districts to work together at a substantial cost savings over a commercial contractor. It also gave workers at Ensley a change to learn and perfect new techniques and skills, and to expand their versatility as a Center for Expertise for Marine Maintenance.

The *Thompson* finished her dry dock at Ensley and headed home March 23.

District resumes search for barrels buried in depths of Lake Superior

The St. Paul District and the U.S. Navy join forces in early June to inspect and sample some of the hundreds of barrels dumped into Lake Superior by the U.S. Army more than 30 years ago. Operations are scheduled to start around June 2 and continue for about 10 days.

According to records, the barrels contain formerly classified munitions parts and scrap metal from the production of weapons at the Twin Cities Army Ammunition Plant (TCAAP) in the late 1950s and early 1960s. An estimated 1,437 steel barrels filled with classified scrap and concrete were dumped off Minnesota's North Shore between Duluth and Two Harbors between 1959 and 1962.

The district located one dump site containing about 100 barrels in the fall of 1990. Two barrels containing scrap munitions parts were recovered. The parts have been identified as timing and fuse mechanism rejects for anti-personnel grenades produced at TCAAP in 1962.

The district planned to continue the search in 1991 and 1992 at the request of the Minnesota Pollution Control Agency (MPCA) but was unable to get funding in either year.

MPCA launched its own search program last year with funding from the U.S. Environmental Protection Agency and located two barrel sites. The two agencies have located about 400 of the 1,437 barrels.

This year's inspection will involve specialized underwater equipment and divers from the Navy's salvage group at Norfolk, Va. The equipment includes an unmanned Remotely Operated Vehicle (ROV) to expedite locating and inspecting barrels by means of sonar and underwater cameras.

A dive team and ROV will work together to inspect and sample barrels in water less than 190 feet deep, the maximum safe depth for divers. The ROV will inspect and sample barrels in deeper water.

The Duluth Area Office will support the barrel operation with a tugboat and crew, work barges and dock facilities at its boatyard on Minnesota Point.

"The goal of this year's operation is to inspect all known barrel sites using the ROV and its underwater cameras. We plan to recover a number of barrels selected at random for detailed inspection and analysis of their contents," said Bob Dempsey, Engineering Management Branch. Dempsey has been coordinator of the barrels search for the district.

This project is just one of 130 defense sites in Minnesota and Wisconsin the district is investigating under a section of the federal Superfund Program which covers clean-up of former military properties.

District commits to quality process

The St. Paul District continues to build the foundation for quality process management.

On June 1, Al Geisen, acting assistant chief of Engineering and Planning Division, becomes the district's first full-time quality coordinator.

That's when Ann Allen, who had the duties of quality coordinator added to her regular work, resumes her full-time job as Chief of Budget Manpower and Management Analysis Branch.

"The district has made a commitment to quality," she said. "This answers the question from the skeptics, 'Is quality for real or is this just another fad?' Quality will not be going away."

With a transition in progress, here is where the district stands with the quality management process.

"Division and office chiefs have attended training on quality concepts," she said, "and the district has made a decision to implement quality processes."

The district's immediate commitments include completing a vision statement, selecting a Quality Council, holding an informational town meeting for all employees, and implementing a quality plan.

"Quality processes provide for considerable empowerment of employees," she said. "A lot of responsibility will go along with it."

The Upper Mississippi River-Illinois Waterway System Navigation Study

A new approach to project study

By Nelson Cordoba, Planning Division, Rock Island District

Reprinted with permission from the Rock Island District's Tower Times, May 1994.

Since 1824, when Congress authorized the removal of snags and local obstructions to facilitate river travel, the Upper Mississippi River and the Illinois Waterway have provided important economic opportunities.

The system provides approximately \$1 billion dollars annually in net benefits to the nation's economy. Equally important is the high environmental and recreational value the Upper Mississippi River basin provides to the nation. These combined factors make the system of great and varying interest to a large number of people.

In view of these considerations, the Corps of Engineers is conducting a study to determine the best way to manage the Upper Mississippi River-Illinois Waterway System (UMR-IWWS) in a manner that balances economic, environmental, and recreational needs. This study takes a systems approach, since changes in one part of the system may have an impact elsewhere in the system.

The study will determine location and appropriate sequencing of navigation improvements on the Upper Mississippi River and the Illinois Waterway and prioritizing capital improvements for the first half of the next century. This study

will also include a system environmental assessment leading to the completion of a system Environmental Impact Statement (EIS)

The Corps of Engineers has increasingly found itself working with a public seeking to be better informed and involved during the Corps planning and project phases. The UMR-IWWS Navigation Study, with its scope covering a study area of approximately 1,200 miles of navigable waterway and scheduled for completion in six years, provides a perfect opportunity to let diverse publics become more involved.

In order to meet the public's demand for increased participation, the Corps, in executing this study, is striving to make changes beneficial to both the public and the Corps. An excellent example of increased multi-agency involvement was the creation of the Navigation Environmental Coordinating Committee (NECC). The group includes federal and state resource agencies who have a review, comment and input function with respect to environmental studies, while also contributing to satisfy statutory requirements for inter-agency coordination. The NECC has been meeting five to six times a year since December 1992.

Another example, at the direction of HQUSACE, was the formation of a Governors' Liaison Committee. The goal is to establish regular communication lines between the Corps and appointed representatives

of the governors of the five Upper Mississippi River Basin states affected by the study. This committee allows for a frank exchange of input, comments and information affecting the planning process. During the length of the study, the committee meets on a quarterly basis, generally preceding the Upper Mississippi River Basin Association meetings. This forum will facilitate efforts to establish a shared set of goals and expectations for the navigation study and to discuss important issues throughout the study. The first Governors' Liaison Committee meeting was held in August 1993, and during that meeting, the states asked for additional coordination at a more detailed level.

"As a result of their request, we now have coordinating committees for several of our work areas, including economic, engineering, and public involvement," said Teresa Kirkeeng-Kincaid, the study's project manager.

Initially, the makeup of the engineering, economic, and public involvement committees was envisioned to be state representatives and observers, but it was felt that all of the committee meetings should be opened up to anyone who wants to attend, so as not to limit public input.

Other examples of better communication tools are the UMR-IWWS Navigation Study Newsletter and the study's toll-free line (1-800-872-8822). Both these tools allow the study team to communicate

study progress as a whole and within the differing disciplines. These tools are also used to inform the general public of upcoming milestones and/or meetings.

In November 1993, the study team went out with public meetings that were to be informational in nature, and the general response received was that people wanted to be much more involved. To meet their request, the Corps, in conjunction with the Governors' representatives for public involvement, enhanced the study's public involvement plan.

The state representatives emphasized the enhanced plan should direct more effort towards public involvement in the plan formulation process and its related milestones. The public wants to be active participants in the process (i.e., development of the improvement measures to be evaluated or inputting into establishing the future without project condition). To that end, the enhanced plan calls for additional forums (i.e. public meetings, workshops, round tables, etc.) which will allow the community to participate and affect the planning process.

"I think the committees have been working well," Kirkeeng-Kincaid said. "I've come to appreciate the representatives and their institutional knowledge. I'm really impressed with the many different communities out there." The navigation study is being done by three different districts—Rock Island, the lead district, and St. Paul and St. Louis. "Three districts working together is a challenge in itself," Kirkeeng-Kincaid said. "No one district can do all of the study. The only way it will continue to be successful is if we continue to find ways to work together."

District works public involvement, O&M portions of navigation study

By Jeff McGrath, Planning Branch

The St. Paul District has an important role in the conduct and outcome of the six-year, \$40 million Upper Mississippi River - Illinois Waterway Navigation Study.

This district is managing the Public Involvement (PI) component of the study. Kevin Bluhm, Planning Branch, leads the PI work group.

At stake is the stewardship of a resource that would experience impacts from downstream navigation improvements.

The study focuses on the existing and projected levels of barge traffic congestion at various locks in the lower Rock Island and St. Louis districts. It will evaluate the impacts on the economic, environmental, recreational, cultural, and social resources throughout the Upper Mississippi River basin.

Heightened concern by river system stakeholders meant tripling the original public involvement plan. The intent of the plan is to facilitate two-way communication between the Corps and outside interests, solicit stakeholder concerns, and minimize controversy surrounding the conduct of the

study and its recommendations. An effective plan will contribute to a consensus for future improvements in the navigation system.

The district is defining the baseline condition for operation and maintenance (O&M) of the navigation system. A team from Engineering and Planning Division is researching historic records to determine past O&M activities and expenditures. The objective is to project how the navigation system will be operated and maintained if no improvements are made.

The district is also developing models to evaluate the performance and reliability of the lock structures. The models will help determine whether to rehabilitate or upgrade the locks for increased traffic. The district will also look at ways to extend an existing 600-foot lock to 1200 feet and evaluate smaller scale alternatives.

The district will also evaluate the impact of recreational traffic on sediment deposition and displacement in the backwaters. This study is of particular interest to the natural resource agencies in Minnesota and Wisconsin where degradation of Mississippi River backwaters is a significant concern.

Bits and Pieces

Northrup receives Army Achievement Medal at retirement

Bob Northrup, Planning Branch, received the Army Achievement Medal for over 31 years of distinguished service with the Army Corps of Engineers. District Commander Col. James Scott presented the medal to Northrup in an award ceremony on May 12. More than 70 co-workers from various divisions attended the ceremony. Northrup retired to his summer residence at Balsam Lake, Wis.



Northrup

Horseshoe takes roots

On April 16 for Arbor Day, Randy Urich and Loren Danson of the Mississippi River Project Office supervised the La Crescent Lions and six 4-H club members in planting 500 young cottonwood trees to stabilize Horseshoe Island and provide habitat.

Wilcox participates in ecology panel

Dan Wilcox, a biologist in Planning Branch, will be a panelist in a workshop on July 18-19 at the Radisson Hotel in La Crosse, Wis. The workshop is sponsored by the Environmental Management Technical Center and the University of Wisconsin-La Crosse. Wilcox and other panelists will discuss "Achieving or sustaining ecological integrity on the UMRS." The workshop is the companion to an international conference titled "Sustaining the Ecological Integrity of Large Floodplain Rivers" from July 12-15 in La Crosse. The conference includes a tour of Lock and Dam No. 7 on July 14.

56 offer ACOE ideas

The Army Communities of Excellence (ACOE) recognizes the following individuals who signed and submitted ideas for the ACOE

competition. (The ACOE committee also thanks the individuals who submitted anonymous suggestions.)

Marilyn Aird, CT-B; Ann Allen, RM-M; Bob Anfang, PE-P; Sherolyn Bahl, CO-Lac Qui Parle; Ed Bankston, OC; Tim Bertschi, CO-Fargo; Dave Berwick, PE-P; Rosemarie Braatz, CO-A; David Christenson, CO-EM; Mary Clarkson, RM; Chuck Crist, PE-P; Tom Crump, PE-P; Bob Dempsey, PE-M; Randy Devendorf, PE-P; Stuart Dobberpuhl, PE-GH; Joanne Dufeck, CT; Kris Fairbanks, PE-P; Karin Greeman, OC; Kathy Halverson, CO-Fargo; Roland Hamborg, CO-NR; Curt Hanson CO-Lac Qui Parle; Doug Hoy, PE-D; Brian Johnson, PE-GH; Greg Johnson, PE-P; Jeff Kleinert, CO-Pokegama; Wayne Knott, PE-P; Marilyn Kruchten, PE-P; Dan Krumholz, CO-Fountain City; Stan Kummer, PE-P; Dave Loss, PE-P; Sally Lunsford, OC; Ed McNally, PE-P; Curt Meeder, PE-P; Mary Muraski, RE-E; Bob Northrup, PE-P; Steve Odegaard, CO-Valley City; Dick Otto, CO-MRPO; Gary Palesh, PE-P; Marvin Pedretti, CO-Lock and Dam No. 10; Bob Post, PE; Dan Reinartz, PE-GH; Marsha Risch, PP-PM; Jody Rooney, PE-P; Bob Schimming, CO-White Rock Dam; Neil Schwanz, PE-GH; Russ Snyder, PE-M; Bill Spychalla, PP-PM; Bob Stone, CO-Lock and Dam No. 3; Frank Star, CO-NR; Mary Street, HR-R; Gregg Struss, CO-Gull Lake; Randy Urich, CO-MRAO; Carl Vierck, RM-M; Bob Whiting, PE-P; Kelsey Willis, PE-GH; Annie Wolf, PE-P.



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