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Three major initiatives underway for Devils Lake

by Peter Verstegen
Public Affairs specialist

Three major initiatives are underway in the St. Paul District for Devils Lake, North Dakota.

A \$1.8 million bid opening for levee work was the most recent. In mid-August, the Corps released plans for a \$21 million emergency outlet. Concurrently, the district continued its \$7 million long-term feasibility study of water resources in the region.

Devils Lake is located in east central North Dakota. The lake and the surrounding drainage is a closed basin with no outlet at its current level. The area has undergone a wet cycle since recovering from the drought of 1988. Since 1993, the lake has risen 15 feet and has doubled in size from 40,000 to 80,000 acres. The high water has caused a cumulative total of \$72 million in damages, primarily to roads and transportation systems.

During a visit to Devils Lake in August, top officials from Corps headquarters and the district joined members of the North Dakota congressional delegation, city, county, state, and tribal officials in a tour of the impacted areas.

On August 12, the Assistant Secretary of the Army for Civil

Works (ASA/CW), H. Martin Lancaster, and Devils Lake Mayor Fred Bott signed the Project Cooperation Agreement (PCA) for a \$7 million project to raise and extend the existing Corps-built levee. "The project is being cost shared with the City of Devils Lake at 75 percent federal, 25 percent city," said Dave Raasch, project manager.

On August 29, the St. Paul District held a bid opening for its first

contract to raise and extend the levee. The bid opening was for the Stage One construction contract at Creel Bay.

The district received six bids. The low bidder was a construction company in Fargo, N.D., with a bid of \$1.8 million. The government estimate was \$2.1 million. The contract award was Sept. 6.

The levee raise will protect the city up to a water level 1445 feet,



Photo by Ken Gardner

St. Paul District Commander COL J.M. Wonsik talks with members of the Spirit Lake Nation Tribal Council during a consultation with the council at Fort Totten Indian Reservation. Tom Raster, technical manager for the outlet plan, is third from left. Raster works in Management and Evaluation Branch.

"plus three to five feet of freeboard," said Raasch. The current levee protects to a level of 1440 feet, plus five feet of freeboard. Freeboard is an extra buffer that helps protect against wave action. The water level in the lake has reached almost 1438 feet.

The Corps built the original levee under Section 205 of the Flood Control Act of 1948, part of the Corps' Continuing Authorities Program that authorizes smaller flood control projects. "The district completed the original levee in 1986 for \$2.7 million," said Raasch. "Section 205 projects these days generally cost from \$1 million to \$5

million."

In addition to the levee project, on August 12 the district released an emergency plan for a \$21 million outlet project. Lancaster released the outlet plan during a press conference at Devils Lake. In May, the North Dakota Congressional delegation requested the plan. Tom Raster, PE-M, coordinated the 90-day priority project to develop a viable outlet plan.

The outlet project starts with a channel from West Bay of Devils Lake through Twin Lakes and crosses the Fort Totten Indian Reservation. The outlet channel empties into the Sheyenne River about five miles northeast of the town of Sheyenne, N.D. The route was selected after a preliminary analysis of topography, subsurface geology, real estate, engineering criteria and information gathered from the on-going feasibility study and the February 1996 Contingency Plan.

"The plan for the outlet represents a balance of key issues, including cost, water quality, tribal considerations, design and construction requirements, and environmental impacts," said COL J.M. Wonsik, district commander.

The outlet project proposes to channel water 12.8 miles at a maximum pumping flow of 200 cubic feet per second (CFS) and lift it 60 feet from the lake until it reaches a natural divide and can flow downhill to the Sheyenne River.

Analysis by the district

using computer models indicated that if the proposed emergency outlet had been in place and operating from the mid-1980s, the lake elevation would have only reached 1435.1 in 1995. This result was based on the project operating with a trigger elevation of 1428, pumping a maximum of 200 cfs and operating May through November. Operational limits were the carrying capacity of the Sheyenne River and downstream water quality criteria.

Meetings hosted by the State of North Dakota and Devils Lake Basin interests have been scheduled to discuss the emergency outlet plan and to receive comments from governmental agencies, tribal officials, downstream interests, basin interests and environmental organizations. Meetings dates are: West Fargo on September 10; Drayton on September 25; Grand Forks on Sept. 26; Cooperstown on October 1; Valley City on October 2; Lisbon on October 3; Devils Lake on October 9; and Fort Totten on October 9.

The construction of an emergency outlet will require special Congressional authorization and funding.

In addition to the levee raise and the emergency outlet, the district is conducting an ongoing \$7 million long-term feasibility study to look at future water management options for the entire lake basin.

"The ongoing feasibility study was authorized under the Energy and Water Development Act of 1993. The study reviews water management, stabilization of lake levels, water supply, water quality, recreation, and enhancement and conservation of fish and wildlife," said Raster. "The study is programmed for completion in the year 2000." The \$7 million effort "is

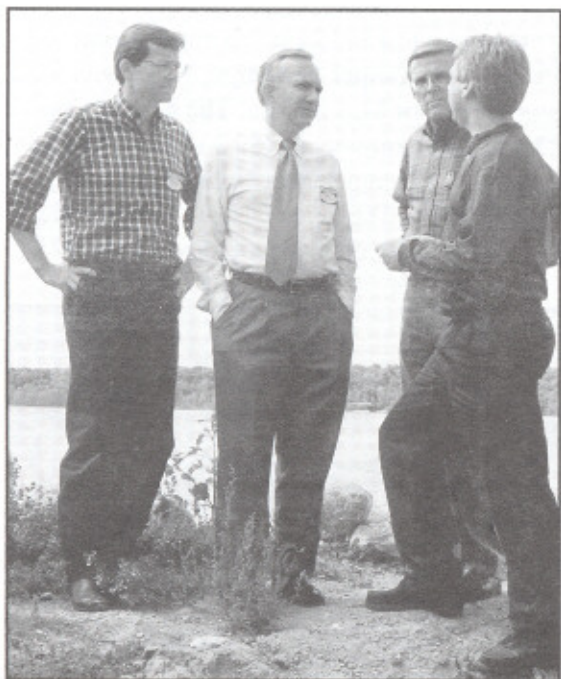


Photo by Ken Gardner

Assistant Secretary of the Army for Civil Works H. Martin Lancaster (center) listens to Vern Thompson (right), mayor of Minnewaukan, N.D., during a tour of flooded homes at Devils Lake. The mayor co-chairs the Devils Lake Emergency Management Committee. They are standing on a private levee protecting a lakeshore home. Listening in are U.S. Representative Earl Pomeroy (left) and U.S. Senator Byron Dorgan.

being cost shared 50/50 with the North Dakota State Water Commission," said Raster.

"The end product of the study, a proposed outlet and inlet to Devils Lake," said Raster, "could cost in excess of \$100 million for the outlet and inlet works and, very likely, a biota removal plant to treat inlet waters from the Missouri River basin in response to Canadian concerns about interbasin biota transfer."

Among the officials to accompany Lancaster at Devils Lake were Wonsik, MG Stanley Genega, director of Civil Works for the Corps; COL James Van Epps, the commander for North Central Division; COL Richard Craig, the commander at Missouri River Division; and COL Robert Volz, the commander at Omaha District. Lancaster also visited the Baldhill Dam/Lake Ashtabula project.

(See related photos on page 7.)

Ray Marshall joins Real Estate Division



Ray Marshall became the new attorney in Real Estate Division early this summer. He was previously senior

counsel in a four-lawyer legal department of NERCO, Inc., Portland, Ore. He has practiced law for 20 years with energy and construction companies throughout Texas and Oklahoma.



Photo by Ken Gardner

Devils Lake Mayor Fred Bott signs the Project Cooperation Agreement on the Devils Lake levee raise. At right, Assistant Secretary of the Army for Civil Works H. Martin Lancaster looks on.



Photo by Ken Gardner

COL J.M. Wonsik, St. Paul District commander (center), talks with COL Richard Craig, commander of the Missouri River Division (MRD), based in Omaha. Craig commanded the St. Paul District from 1991 to 1993 and the North Central Division from 1993 to 1995. John Ferrell, MRD Public Affairs, is at right.

District develops habitat on the Mississippi River

by Kelly Cahalan
Public Affairs volunteer

Singing birds and croaking frogs. Cattails rustle in gentle winds that carry smells of the Mississippi through the lush marshes and open fields that make up the Trempealeau National Wildlife Refuge.

Last year, the U.S. Fish and Wildlife Service (USFWS) and the Wisconsin Department of Natural Resources (WDNR) called upon the St. Paul District to design a system to protect these sounds and scents of nature for generations to come. The project is part of the Environmental Management Program (EMP).

Situated along the Mississippi River migration corridor near Winona, the 5,700-acre refuge in northwest Trempealeau County, Wisconsin attracts a multitude of

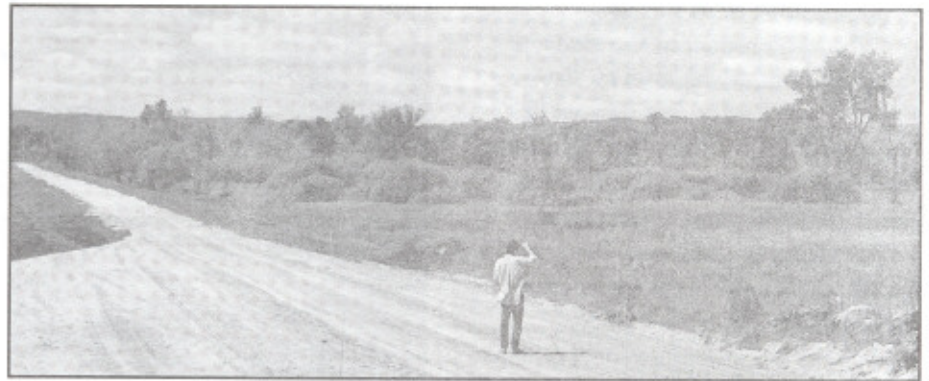


Photo by Kelly Cahalan

Randy Devendorf (PE-M) stands on the C2 dike and scans the C2 pool site. Next summer approximately two feet of water will be pumped into this area from Pool A.

migratory birds and other wildlife to its wetland habitat each year.

The refuge differs from other Upper Mississippi wetlands because it is blocked off from both the Mississippi and Trempealeau Rivers by roads and existing dikes. Without

a direct current from the Mississippi, the refuge is spared from the pollution and siltation problems that endanger both plant and wildlife populations. However, the refuge is not without its own problems.

According to Randy Devendorf, a biologist in Management and Evaluation Branch (PE-M), the EMP project addresses two challenges: one area in the refuge has too much water, another too little. In both areas, the result has been a decrease in aquatic vegetation—specifically, the emergent plants required to support healthy bird and fish populations. Emergents provide vital cover for waterfowl and other species that come to the refuge each year to bear their young.

According to EMP Manager Don Powell, the \$5 million project will construct three dikes to create three pools at different locations within the refuge. The dikes include pumping stations that will maintain the necessary water levels in each pool to restore the refuge to a predominately wetland habitat.

Today, the water level in one of the pools, Pool A, is too great. Waves



Photo by Kelly Cahalan

Don Powell, Randy Devendorf (both from PE-M) and CPT (P) Randy Glaeser, Eastern Area Office project inspector, discuss construction progress with J.F. Brennan Quality Control Manager Steve Becker.

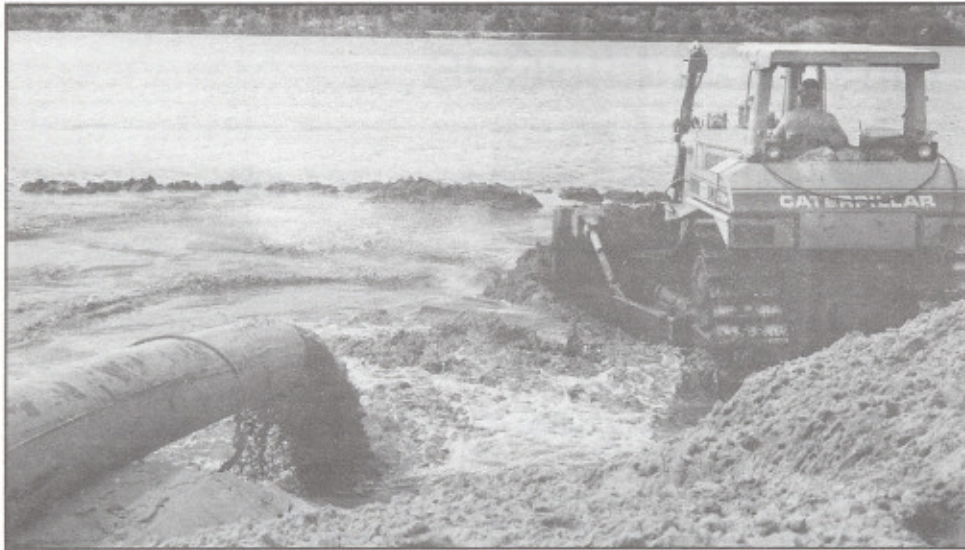


Photo by Kelly Cahalan

A bulldozer shapes sand-fill to form a new dike. Eventually, the dike will extend across the open water to the Burlington Northern Railroad dike that runs along Pool A and marks the western edge of the refuge.



Photo by Joel Face

The newly constructed dike A splits pools into A and B. The dike and pool design aids habitat by reducing wind and wave action. The photo was taken from the proposed site of a pump station that will regulate the pool levels.

created by strong winds from the Mississippi leave water too turbid for emergent plant growth. Once construction is completed, the water level in Pool A will be lowered approximately two feet to allow germination of native seeds. After the growth of emergents begins, the pool will be allowed to fill to normal levels. The dike will also act as a wind break.

In the northern reaches of the refuge,

water will be pumped into two other pools, Pool C2 and Pool E, to ensure a consistent wetland habitat in an area that has experienced extremes in wet and dry conditions over the past decades.

Marine construction contractor, J.F. Brennan Company, Inc., is using a hydraulic dredging system to build a 4,100-foot dike for Pool A and another 6,200 foot dike for Pool C2. Brennan's



Photo by Kelly Cahalan

The above pipe is used to measure how far the sand-fill has settled before construction of a pump station begins next summer.

contract dredge pumps sand from the bottom of the Mississippi and from a site near the Trempealeau River directly to the construction sites. Both dikes should be completed by the end of the summer. The third dike, because of its location, length and completion deadline, will require the contractor to truck in about 60,000 cubic yards of sand-fill to construct a 6,700-foot dike which will extend between an existing dike and a railroad embankment. Next summer, the contractors will build three concrete pump structures after which pumps will be installed later to control water levels in each pool.

The EMP was established by Congress in 1986 to balance and protect the many resources of the Upper Mississippi River System. The program covers habitat rehabilitation and enhancement projects, long-term resource monitoring and studies of economic impacts of recreation study and navigation.

Bits and Pieces

Glaeser selected for promotion, tagged for 179 to 364 days in Croatia

The Army promotion board this June selected CPT (P) Randy Glaeser for promotion to Major. This August, Glaeser received word that he was tagged for a 179-day tour of duty in Croatia.

Glaeser works in the Eastern Area Office, in Winona, Minn., as a project engineer and contracting officer's representative (COR).

While in the St. Paul District, he has worked on the Environmental Management Program, including projects at Peterson Lake, Trempealeau, Busse Lake, and the

Pool 9 Islands on the Mississippi River.

With his selection, Glaeser waits for his promotion number to come up. Meanwhile, his promotion is noted with the designation (P) after his rank.

Glaeser reports to Fort Benning, Ga., on Sept. 15 in preparation for his overseas movement, then flies to Europe. His initial tour of temporary duty is 179 days for Operation Joint Endeavor at Slavonski Brod Croatia. The Army has the option to extend his tour to 364 days.

"My job will be to provide engineering and operation support to the Task Force Eagle base camp coordination agency," Glaeser said.

Glaeser is a native of Oshkosh, Wis. He and his wife, Vivian, have two children, Kristin, age 5, and Andrew, age 3.

Glaeser was commissioned as a 2LT upon graduation from West Point in 1986. His first overseas assignment was in Germany. He has been with the St. Paul District for 18 months in a 36-month tour of duty.

Children "want to go again" to Bring Your Child to Work Day



Photos by Lisa Robertson

Listening to Greg Frankosky give a presentation are (from left) Teri Alberico, Charlie Spitzack, Samantha Spitzack and Devin Jorgenson. Alberico and Frankosky work in PE-M.



Above, Carol Johnson's son, Andy Johnson, examines a mock up of a working lock and dam. Carol Johnson is with RM-BM. Jason Neimann, Lock and Dam No. 1, refurbished the working model for Bring Your Child to Work Day. They are on the Jonathan Padelford.

by Lisa Robertson
Student in Public Affairs

Chuck Spitzack's children, Charlie and Samantha (left photo) said they "want to go again." What they want to do again is join their parents for Bring Your Child to Work Day, sponsored by the Equal Employment Opportunity Office and the Federal Women's Program. Spitzack is chief, PE-M.

On August 20, employees and their children traveled to Harriet Island via Capital City Trolley for a paddle boat tour on the Mississippi River between St. Paul and Minneapolis.

The tour boat shoved off early in the morning for a four-hour trip that included locking through Lock and Dam No. 1 in Minneapolis.

Greg Frankosky, Judy DesHarnais (both PE-M) and Jason Neimann, a Co-Op Program student at Lock and Dam No. 1, were among the presenters for Bring Your Child to Work Day.

Lancaster views dam safety project at Baldhill Dam/Lake Ashtabula



Photo by Scott Tichy

Assistant Secretary of the Army for Civil Works (ASA/CW) H. Martin Lancaster visited the district's project at Baldhill Dam/Lake Ashtabula at Valley City, N.D., on August 12. Walking up the dam spillway, from left, are COL J.M. Wonsik, St. Paul District commander; Mike Evenson, resident engineer; Lancaster; U.S. Representative Earl Pomeroy; Minnewaukan Mayor Vern Thompson; and COL James Van Epps, the commander of the North Central Division.

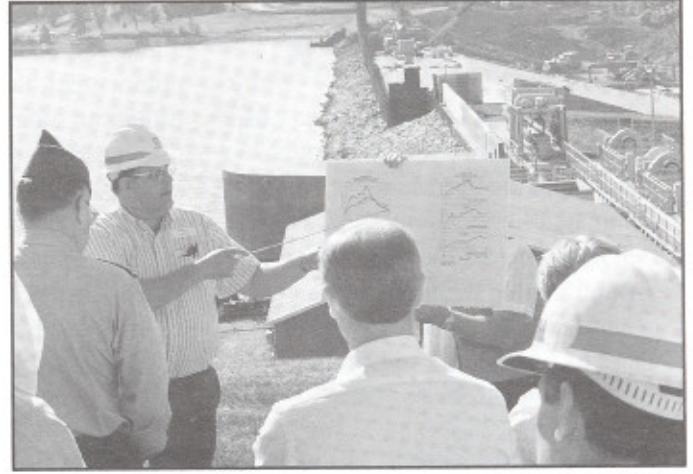


Photo by Scott Tichy

Baldhill Dam is undergoing a \$23 million project for dam safety construction and major rehabilitation. Viewing the project and a presentation chart are, from left, MG Stanley Genega, the Corps' Director of Civil Works; Bill Spychalla, project manager; Chuck Crist, district deputy for Programs and Project Management; and Tim Bertschi, wearing the hard hat. Resident Engineer Mike Evenson is holding the chart.

Safety's "Top 10" offenders

by Ron Scott, Safety Office

In a take off of the popularity of the "Top 10" list on the David Letterman show, here are the "Top Ten" safety deficiencies observed in Corps of Engineers districts.

The safety deficiencies were noted by Design Construction Analysis Feedback teams during their visits to all Corps districts during the past couple of years. The violations are in order of frequency of observation, with references to the applicable paragraph in the Safety Manual.

Here they are—the "Top 10"

safety deficiencies:

10. Improperly stored gas cylinders (20.D.08 and 20.D.10);
9. No back up alarms on construction equipment (16.B.01);
8. No reverse flow check valves installed between the torch and the regulator on welding torches (10.D.08);
7. No safety plan/hazard analysis for complete work (01.A.07 and 01.A.09);
6. No fire extinguisher where required (16.A.26 and 09.B.03 10.C.01);
5. Improper ladders, too short, or not tied off (21.D.01 through 21.D.11);
4. No GFCI (ground fault circuit interrupt) on temporary power (11.C.05);
3. Unprotected excavations: no temporary fences or barricades (25.B.01.a);
2. Power cords improperly placed or patched or wrong type (11.A.03.a, 11.A.03.b and 11.A.03.D);
1. And the number one safety deficiency noted—improperly constructed scaffolding, with no access ladder (21.B.08), no toe boards (21.B.04), unsecured planking (21.B.06.a) or improper/missing railing (21.B.08).

Unfortunately, all of these deficiencies are too frequent. Please maintain vigilance to insure that none of these hazards appear on any of the jobs in the St. Paul District.

Working together we can keep the district off any "Top 10" list of safety hazards.

Maj. Gen. Ballard nominated as new chief of engineers

Washington, D.C. — Secretary of Defense William J. Perry announced Aug. 1 that the President has nominated Major General Joe N. Ballard, United States Army, for appointment to the grade of lieutenant general and assignment as the 49th Chief of Engineers and Commanding General, United States Army Corps of Engineers, Washington, D.C. Since July 1995, he has served as the Chief of Staff, United States Army Training and Doctrine Command, Fort Monroe, Va.

Maj. Gen. Pat M. Stevens IV has been serving as the Acting Chief of Engineers since Lt. Gen. Arthur E. Williams' retirement in June.

The Chief of Engineers occupies a unique position as a senior member of the Army Staff and as commander of a major Army command. The Chief of Engineers has Army Staff responsibility in the areas of engineering, housing, construction, real property, natural resources, and environmental programs for

Department of Army. The Chief of Engineers provides advice and assistance on military engineering and topographic matters. As a major commander, the Chief of Engineers directs an organization of more than 500 military and approximately 39,000 civilian members with an annual program exceeding \$10 billion. Major missions of the U.S. Army Corps of Engineers include military facilities construction for the Army and Air Force; environmental restoration of current and former defense installations; and the Army's civil works program.

The Corps of Engineers also provides engineering assistance in the wake of natural disasters, regulates work in the nation's waterways and wetlands, conducts research and development, serves as the Army and Air Force real estate agent, and provides engineering services to 60 other federal agencies.

Maj. Gen. Ballard was born in Louisiana. In 1965, he graduated from Southern University A&M College with a bachelor's degree in Electrical Engineering and was

commissioned into the Corps of Engineers. In addition to his master's degree in Engineering Management from the University of Missouri, he is a graduate of the Engineer Officer Basic and Advanced Courses, the Army Command and General Staff College, and the Army War College. He is a registered professional engineer in civil engineering.

Maj. Gen. Ballard has held a wide variety of important command and staff positions, including most recently the Commanding General of the U.S. Army Engineer Center and Fort Leonard Wood. Prior to that, he was Special Assistant to the Director of Management for the Total Army Basing Study, Office of the Chief of Staff, Washington, D.C.; Deputy Commanding General, U.S. Army Engineer Center and Fort Leonard Wood/Assistant Commandant, U.S. Army Engineer School; Assistant Deputy Chief of Staff, Engineer, Headquarters U.S. Army Europe; Commander, 18th Engineer Brigade in Karlsruhe, Germany; Chief, Assignments Branch, Colonels' Division; and Commander, 82d Engineer Battalion, 7th Engineer Brigade in Bamberg, Germany.

From 1979 until 1982, Maj. Gen. Ballard served as the Facility Energy Manager, Office of the Deputy Chief of Staff for Logistics in Washington, D.C. Prior to that, he was the Chief, Mapping and Intelligence Section, Engineer Division, United States Forces Korea/Eighth United States Army and then Executive Officer to the United States Forces Korea Engineer.

He is married to the former Tessie LaRose, and they are the parents of three daughters.



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