

Open Channels

Brig. Gen. Michael J. Walsh takes command of MVD



Brigadier General Michael Walsh assumed command of the Mississippi Valley Division, Vicksburg, Miss., February 20, 2008. He also serves as President-designee of the Mississippi River Commission. General Walsh came to MVD from Baghdad, Iraq, where he was the Commander for the Corps' Gulf Region Division.

As MVD Commander, Walsh is responsible for a \$7.5 billion civil works program. In addition, he plays a vital role in managing the Corps water resources program in the Mississippi River Valley. The boundaries of the Mississippi Valley Division extend from Canada to the Gulf of Mexico, include portions of 12 states, and encompass 370,000 square miles.

The programs and activities overseen by the MVD and MRC are conducted by six district offices located in St. Paul, Minn., Rock Island, Ill., St. Louis, Mo., Memphis, Tenn., Vicksburg, Miss., and New

Orleans, La. He also serves as Commander of Task Force Hope. TF Hope is the designation given to the Corps' effort in support of the Federal Emergency Management Agency's national response plan to Hurricane Katrina. Engaging more than 3,800 personnel at its peak, TF Hope was among the largest disaster recovery operations in the history of the Corps of Engineers.

Previous assignments include: Commander of the Corps' South Atlantic Division, Atlanta, Ga., from June 2004 to September 2006, Chief of Staff at Corps headquarters, Washington, D.C., from May 2003 to June 2004, Executive Director of Civil Works at Corps headquarters, Washington, D.C., from August 2001 to May 2003, District Commander of the Corps' Sacramento District, Sacramento, Calif., from 1998 to 2001, and District Commander of the Corps' San Francisco District, San Francisco, Calif., from 1994 to 1996.

Brig. Gen. Walsh has held a wide variety of Army command and staff assignments, to include: project management officer for Engineer Branch, Supreme Headquarters, Allied Powers, Europe (SHAPE); Environmental Task Force Leader, Fort Stewart, Ga.; Executive Officer, 92nd Engineer Battalion, Fort Stewart, Ga., and Saudi Arabia; Project Engineer and Assistant Area Engineer, Baltimore District; Construction Officer, 18th Engineer Brigade, Darmstadt, Germany; and Commander,

Company B, 94th Engineer Battalion, Darmstadt, Germany.

Brig. Gen. Walsh graduated from Polytechnic Institute of New York in 1977 with a bachelor's degree in civil engineering. He also earned a master's degree in construction management from the University of Florida. His military education includes the Engineer Officers Basic and Advanced Courses, U.S. Army Command and General Staff College, and the U.S. Army War College. He was born in Brooklyn, NY, and is married with two children.



Brig. Gen. Robert Crear, right, retired as Commander of the Mississippi Valley Division, U.S. Army Corps of Engineers, and as President of the Mississippi River Commission. He is followed by Lt. Gen. Robert Van Antwerp, Brig. Gen. Michael J. Walsh, and Mike Rogers.



St. Paul District expands its role in rebuilding New Orleans hurricane protection

by Bill Csajko

St. Paul District significantly expanded its involvement in the largest civil works project in Corps' history: restoring the existing hurricane protection system and increasing the level of protection for New Orleans, La., and its vicinity.

The largest design-build contract in Corps' history, the Inner Harbor Navigation Canal – Surge Protection Project, was recently awarded to Shaw Environmental and Infrastructure, Inc., of New Orleans for almost \$700 million.

The structure is expected to be located at the confluence of the Gulf Intracoastal Waterway and the Mississippi River gulf outlet. It will reduce the surge flood levels associated with hurricanes in the Intracoastal Waterway and the Inner Harbor Canal.

St. Paul employees are playing major roles in the design and construction of this huge effort, including Michael Bart, chief of engineering and construction; Neil Schwanz, Gary Smith, both design branch; and Tim Paulus, project management.

This is the first of what will eventually be a total of almost \$15 billion in design and construction to provide a 100-year level of protection for the area.

One of the largest projects for providing a 100-year level of protection to the New Orleans area is St. Bernard Parish, which is southeast of downtown New Orleans and includes 23 miles of

levees and floodwalls, a navigable sector gate structure and several roadway and railroad crossings.

The estimated cost for construction of this project is more than \$2 billion. The district is managing the overall design of the project, with a team that includes Bill Csajko, project management; Kent Hokens, Ralph Berger, Darrell Morey, Grant Riddick and Gary Smith, all from design branch.

A team from Rock Island District is assisting St. Paul with the design management. They are managing the preparation of plans and specifications for the sector gate structure replacement at Bayou Dupre.

The designs for this project are being prepared by Bioengineering-ARCADIS, from Metairie, La. An Engineering Alternatives Report is scheduled for completion in May and will recommend the final alternatives for construction.

Immediately following will be preparation of plans and specifications for the remaining reaches in the parish.

St. Paul District also continues to be involved in the design and construction of the Lake Pontchartrain and vicinity reach 103 on Lake Pontchartrain, which is the area between the Orleans Avenue Canal and the London Avenue Canal. This area includes almost two miles of levees, floodwalls, roadway crossings and a navigable sector gate structure.

(see N.O. next page)

Open Channels U.S. Army Corps of Engineers Mississippi Valley Division



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-N.O.-

“Construction is underway on the levee portions of the reach, under a \$5.2 million contract with Merrick Construction,” said Rick Femrite, design branch. The borrow material for the contract is obtained from the Bonnet Carré spillway, which has just been in the national news, because the spillway had to be opened for the first time since 1997 to divert water from the Mississippi River into Lake Pontchartrain to lower the river stages in New Orleans. Said Femrite, “The borrow material for LPV 103 had to be hauled out of the spillway to a temporary stockpile area because of the high water.”

Two more construction contracts are under design for the remaining floodwalls, roadway crossings and sector-gate structure in LPV 103.

Construction of these remaining features is scheduled to begin later this year. The LPV 103 team in St. Paul preparing the designs includes Csajko, project management; Femrite, Hokens and Schwanz, all design branch; and Stanley Consultants, based in Muscatine, Iowa.

In November 2007, St. Paul District assumed the technical lead for the design of the pump station protection project for seven west bank pump stations in Jefferson Parish. The project, known as the Westbank Fronting Protection Project, raises the floodwall and levees protecting the seven pump stations at five distinct locations in Jefferson Parish. The St. Paul team consists of Russ Snyder, project management; and Hokens, Schwanz, Ralph Berger, Mark Klika, Jim Sentz and Dave Kollars, all design branch. Preparation of the plans and specifications for the pump station project was awarded to Stanley Consultants this April with completion of plans and



Left to right: Gary Smith, Kent Hokens, Marsha Mose and Ralph Berger, all design branch. Said Mose, chief of design branch in St. Paul, “I am serving as U5 liaison for the month; Grant Riddick, design branch, is also serving as a U5 liaison, but was not here for the picture.” U5 is shorthand for upper five districts in the Mississippi Valley Division: St. Paul, Rock Island, St. Louis, Memphis and Vicksburg. The design branch team was in New Orleans April 9 for a selection meeting on work in St. Bernard Parish.

specifications scheduled for the end of the calendar year.

Construction cost is estimated to top \$100 million with the construction contracts targeted for award in early 2009.

St. Paul District also continues to provide major assistance in other ways. This includes providing what are termed “HPO liaisons,” who are individuals who spend about a month in New Orleans working as a liaison among the upper five districts, or U5, in Mississippi Valley Division, the Hurricane Protection Office and New Orleans District. Marsha Mose, chief of design branch and Riddick, Femrite and Mike Dahlquist, all design branch, are the most recent district-level liaisons from St. Paul.

Tom Sully was recently selected as the next U5 regional project manager with a focus on overall division-level coordination and strategy.

Sully will coordinate reachback-activities of all the upper five districts in their support of the HPO. This role had previously been provided by Dennis Hamilton from Rock Island District.

Hokens and Schwanz continue to lead the development of design standards in New Orleans, including new T-wall design standards. Hokens and Schwanz, along with others from Corps’ headquarters, the HPO and New Orleans District, recently presented the new design standards to a gathering of about 175 architect-engineer professionals in New Orleans. And, the St. Paul District also continues to support New Orleans District by assisting them with nonhurricane protection system projects, such as Bayou Sorrel Lock, which involves design branch personnel Tim Grundhoffer, Fred Bischoff, Jan Lassen, Chris Behling, Tony Fares and Lori Taylor.



St. Paul District News and Notes



Jeff Kleinert, Pokegama Park manager, cleaned wood duck boxes as part of seasonal cleanup at the recreation site March 27. “We switch out nesting material in the boxes and take out egg shell fragments,” said Kleinert. He replaces it with wood shavings. “It’s part of the district’s environmental stewardship mission,” he said. Other activities occur as teachers or scout leaders approach the staff at Pokegama. Earth Day and Arbor Day are celebrated at Pokegama on May 3 by planting two trees in the recreation area, picking up litter and presenting a manager’s program on environmental stewardship. (photo by Tammy Wick)

Lock personnel rescue freezing canoeists on Mississippi River

The southbound Motor Vessel Robin B. Ingram called Lock and Dam 5, Minnesota City, Minn., on April 21 around 9:30 a.m. to report a canoe was capsized at Mississippi River mile marker 730.8 with three people in the water.

Dave Tropple, lockmaster, sent Curt Marty, head lock and dam operator, and Nathan Van Loon, lock operator, to the site in a Corps’

lifeboat. The lock and dam is at river mile 738.1, 10 miles northwest of Winona, Minn. When the lock and dam personnel arrived, they found three males in their 30s sitting on the shore.

Hypothermia was setting in, two of them could not talk or walk, the third one was shivering uncontrollably. Marty and Van Loon provided them coats and sweat shirts.

Marty called the lock and talked to Jamie Gibbons, automation clerk, who requested an ambulance meet them at the public landing in Fountain City, Wis. The ambulance took the shivering canoeists to the hospital. Marty and Van Loon returned to the lock, canoe in tow with what gear they could find. The father of one of the guys later called the lock to set up a time to pick up the canoe and gear. “I did find out on April 22 that they are all out of the hospital and doing fine,” said Tropple.



Rock Island District Takes Initiative, Coordinates Interagency Flood Workshop

Every year citizens across the country, especially in the Midwest, face the real possibility of becoming a victim of spring flooding. Government agencies on all levels prepare for that possibility, but those agencies don't always take a proactive approach to making sure they're reading off the same page ... until now.

The Rock Island District set precedence in the Corps this year by creating, coordinating, and administering the first interagency flood-mitigation workshop to take place in the Upper Mississippi River Basin.

The early-March initiative brought together nearly 100 representatives of federal agencies, state and local governments and non-governmental organizations to get regional public works, fire, police and disaster-management personnel together to hear about the chance for flooding, to network and to learn about what assistance is available if the worst happens.

"It is better to do it now, before the event, and figure out the kind of gaps that exist (in flood-fighting efforts) and how to bridge them," said Col. Robert Sinkler, District Commander. "Our purpose is to integrate the federal, local, state and nongovernmental organizations efforts in this kind of emergency.

This way, we can coordinate a response to a disaster in the Upper Mississippi Valley."

The 943-acre federal campus at the Rock Island Arsenal was an ideal place for the two-day meeting, which served experts as a location to come together and discuss flood mitigation.

The workshop brought together organizations from five states to interact on flood mitigation issues. Its stated goals were:
--Provide a common platform to develop and improve interagency relationships.

Spring 2008



Jeff Jensen, HQUSACE program manager, Flood Control and Coastal Emergencies, speaks with government representatives during the March 5 session of the Upper Midwest Interagency Flood Mitigation Workshop held on Rock Island Arsenal.

--Identify governmental roles and responsibilities, and define when they pertain to the different stages of flood-fight planning, response and recovery.

--Given the backdrop of an authentic, simulated flood event, explore and validate communication procedures and response-recovery activities.

Attendees came from agencies in Illinois, Iowa, Mississippi, Missouri and Nebraska; all states that face flood issues from the presence of the Mississippi and Missouri river drainage systems.

The District's Emergency Management division was responsible for the development of the exercise topics, goals and objectives, and scenarios.

"We also identified key personnel from other agencies to participate in the event and presented their agencies' flood response program information," said Sarah Jones, Emergency Management.

"We were also responsible for coordinating all organizational and logistical activities to ensure the success of the event." Jones said many EM staff members assisted in the development of the exercise including: Jones, Kent Stenmark, Rodney Delp, Julie Fisher and Beth Nightingale.

"The District received support from the Readiness Support Center in Mobile, Ala., with the development of the Scenario Presentation," said Jones. "We were also successful in providing a platform for discussions on potential gaps in interagency response capabilities. The feedback we have received from workshop participants has been very positive.

Many have commented on the need to hold this type of event on an annual basis."

In addition to presentations on various flood-related topics, including forecasts for possible flooding of the Upper Mississippi Valley later this year, representatives broke into small groups to respond to emergencies in a flood simulation exercise on the second day of the workshop. The exercise began with scheduling of resources a week before a predicted flood, and then advanced to mitigating the effects of the flood, and continued to advance in oneweek increments to a month after the flooding came under control. At each stage, the various organizations talked to each other, planning responses to the situation and working with their real-life counterparts from other state and federal agencies.

Eric Cramer, Rock Island Arsenal Garrison Public Affairs; and Tom Saul, Quad-City Times, contributed to this article.

Open Channels



Rock Island District, Rockford Sign Flood Risk Agreement

Story and photo by Ann McCrery

The Corps doesn't often have the opportunity to be in the public eye alongside a congressman and senator who support the Corps' work and recommendations; however, that is what happened at the Keith Creek-Alpine Dam Flood Risk Management Feasibility Study Cost-Sharing Agreement on Feb. 19, at the Rockford City Hall in Rockford, Ill.

Sen. Richard Durbin and Rep. Donald Manzullo participated in the signing ceremony where the mayor of Rockford, Larry Morrissey, and the Rock Island District Commander, Col. Robert Sinkler, signed the cost-sharing agreement.

The ceremony started with a bit of laughter when Durbin made a slight miscalculation on the amount of money being provided by the federal government. He said we are happy to secure \$500 million for this project, rather than \$500,000, but once the laughter passed, it was time to talk about the task at hand.

"Rockford residents who have been faced with serious flooding in the recent past know that the problems caused by flooding don't recede as fast as the water does," Durbin said.

"Families shouldn't have to spend each summer dreading the next big flood. With the signing of today's agreement, the Army Corps of Engineers will be able to begin studying the best solutions for the Keith Creek area."

The Keith Creek drainage area is in Winnebago County and consists of approximately 15-square-miles. There are approximately 11,000 homes downstream of the dam and approximately one third are at risk of serious flood damage.

"This is an urban creek that has not seen any major improvements made to it since 1942," said Morrissey.

"The flooding experienced by our city over the past two years shows a real need for flood-hazard reduction, water-quality improvements, and the development of recreational opportunities. The Keith Creek Feasibility Study will develop plans that will analyze all aspects of the storm-water management needs on Keith Creek. By partnering with the Army Corps of Engineers the citizens of Rockford should expect an independent assessment of the creek that will allow us to better plan and manage Keith Creek."

"Nearly 1,900 private properties valued at \$133 million are threatened by a potential failure of the Alpine Dam in Rockford," said Manzullo.

"Senator Durbin and I worked hard to secure the federal funds needed to study options to protect residents and business owners along Keith Creek from a catastrophic flood," said Manzullo. "I congratulate the U.S. Army Corps of Engineers and City of Rockford today for entering into this agreement for a feasibility study."



Rockford Mayor Larry Morrissey signs the Keith Creek-Alpine Dam Flood Risk Management Feasibility Study Cost-Sharing Agreement shortly after District Commander Col. Robert Sinkler signed the document. Behind Morrissey and Sinkler, from left to right, Scott Christiansen, chairman, Winnebago County Board, Illinois State Rep. Charles Jefferson, D-III., Sen. Dick Durbin, D-III., and Rep. Donald Manzullo, R-III.

"The Corps looks forward to working with the city on this study," said Sinkler. "They (the city) have already demonstrated a great commitment to the citizens in the Keith Creek drainage area, and have continued that commitment by providing funds for this study."

The Keith Creek-Alpine Dam Flood Risk Management Feasibility Study Cost-Sharing Agreement is a joint effort between the City of Rockford and the Corps to determine whether work should be done in the interest of flood damage reduction, environmental restoration and protection, and related purposes along Keith Creek in Rockford. The study is in response to long-term concerns at the dam and recently identified flooding concerns in the south branch of Keith creek. This includes identifying repairs and improvements to Alpine Dam and its spillway.



Geocaching takes hold at Mark Twain Lake

Story by George Stringham

The childhood-favorite game, hide-and-peek, gets upgrade for twenty-first century. In a nutshell, that's what Geocaching is and Mark Twain Lake is using this outdoor entertainment adventure game to take visitors to parts of the lake that they wouldn't normally see.

The basic idea of Geocaching is to have individuals and organizations set up caches all over the world and share the locations of these caches on the internet. GPS users can then use the location coordinates to find the caches.

The caches are typically sealed in a water-tight container like a Tupperware dish or an empty ammunition can and contain a log (journal) for Geocachers to leave notes. Geocachers can swap out the cache (often a trinket like what you'd find in a Happy Meal), with a different one.

According to www.Geocaching.com, the official Geocaching organization, the accuracy of non-government GPS units improved dramatically on May 2, 2000, when the "selective availability" function for twenty-four GPS satellites around the globe was disabled. Tens of thousands of GPS receivers around the world had an instant upgrade.

This opened the door for the average person to use GPS units for ways that weren't dreamed of and brought new meaning to the childhood game of Hide-and-Seek.



Geocachers find their treasure during the Children's Geocaching portion of SLAGA's 2008 MOGA at Mark Twain Lake.

For the second year in a row, Mark Twain Lake, in northeast Missouri, was host to the Midwest Open Geocaching Adventure. MOGA was started by the St. Louis Area Geocachers Association in 2004. This year's event, held at the John F. Spaulding Recreation Area on the eastern end of the lake, had more than 500 participants and an estimated total attendance in excess of 800, representing 27 states in the union and Canada.

"We are really happy with the way that it has worked out here," said Allen Mehrer, Mark Twain Lake Park Ranger.

"This is only the second year we've hosted this event and we can already see its benefits."

Mehrer said that they can't definitely tie park attendance to Geocaching, but they do feel that having the sites located on the property brings people out that wouldn't normally visit the lake.

"People will come out in the dead of winter to look for caches. They have no other reason for coming out here that time of the year," he exclaimed.

Mehrer explained that up until November 2005, he had no idea what Geocaching was or what he was getting himself into when he granted a Special Use Permit to Eric East, a local Geocacher, to place a cache at the lake.

(see Geo, next page)



Geocachers download all the coordinates for the 60 caches in John F. Spaulding Recreation Area that were being used for the 2008 MOGA. The previous year's event had the same number of caches, but they were located in Indian Creek Recreation Area.

“Geo-what? was the first thing that came out of my mouth,” Mehrer recalled. After a short tutorial on the phenomenon, he tentatively agreed to the permit.

People would log their findings and comments online as they found East’s cache and Mehrer said that that’s when he realized the value of this new, high-tech adventure. Mehrer remembered thinking that “People are actually searching for this cache filled with insignificant treasures!”

Mehrer said he could really tell the potential effects Geocaching could have on Mark Twain Lake when the first event was held in May 2006. One of the 50 Geocachers in attendance was Mike Griffin from SLAGA.

“I heard an off-the-cuff comment from Mike who said this

would be a great place for a MOGA,” Mehrer remembered. Griffin and Mehrer would meet in July where they agreed that SLA-GA could use Indian Creek Recreation Area in its entirety for the 2007 MOGA event. It was scheduled for the last week of March, before the recreation season begins, to avoid any user conflicts.

Creating Partnerships

In addition to finding a great location for this event, Griffin also found a great partner in Mark Twain Lake and the surrounding communities.

“Most land management agencies that we’ve worked with before for events like this required that we remove the geocaches when we were done,” Griffin explained. “But Allen wanted us to leave them in place so others could continue to use them.”

Mehrer explained to Griffin that it was a low impact form of maintenance which required very little maintenance. Mehrer’s plan has worked. By 2009’s event, he expects to have more than 250 caches across the lake.

Mehrer added that the event is also good for the community. “We fill up hotels when they normally wouldn’t be full and the businesses supply coupons for the participants packages.”

Outdoor Adventure

One of the unique and fun aspects of Geocaching is that it takes people to places they wouldn’t normally go.

“I’ve placed one called ‘Middle Fork Palisade’,” Mehrer explains. “The view is unbelievable and the chance of anyone discovering it without Geocaching is just as unlikely.”

Mehrer has used a variety of trinkets in his caches, but the ones that disappear the quickest are the water safety items.

Another aspect of the game is that anybody can do it. GPS units are less expensive and easier to use.

Geocachers can also pick and choose their hunts based on the difficulty level.

For Mehrer, though, it’s a family affair. “Although I had no idea what it was less than three years ago, I’ve managed to get myself and the rest of the family excited about it.

“When we go on trips, we’ll pull up some Geocaching sites along the route and build it into the schedule,” Mehrer says.

“It’s great family sport.”



Army Decoration for Exceptional Civilian Service goes to St. Louis Corps of Engineers employee

Story by Alan Dooley

Dr. Michael K. “Sonny” Trimble, of the U.S. Army Corps of Engineers in St. Louis was announced as one of 26 Army Civilians receiving the Army’s top awards to civilian employees for 2008.

Trimble received the Decoration for Exceptional Civilian Service from Army Secretary Pete Geren in a Pentagon Ceremony April 15.

Dr. Trimble was cited for his leadership of a team of experts that performed forensic mass-grave exhumations and analyses in Iraq following Gulf War II.

Travelling to Iraq for seven extended periods, Trimble personally testified against Saddam Hussein, “Chemical Ali” and several other former Iraqi government officials in the Anfal Trial in Baghdad.

In announcing the honor accorded to Trimble, the Army said that his work demonstrates America’s support to the Global War on Terrorism by emphasizing our resolve to bring to trial those individuals accused of unthinkable crimes against other human beings.

Trimble and his hand picked teams applied proven techniques and technologies of archaeological and anthropological investigations, as well as specially adapting methods to curate and preserve information in forms that would stand up in court trials against war criminals.



Dr. Trimble was recognized with the top Army award for civilians. Here, he is pictured at the Muthanna Mass Grave Complex in the Iraqi desert in April 2005.

The teams spent a series of lengthy periods in Iraq identifying and selecting mass grave sites, and then excavating remains from these graves before assembling a body of evidence and data that has been used in a series of trials of former Baath Party officials accused of numerous atrocities against the people of Iraq.

Trimble’s teams also worked closely with Iraqi colleagues to help them to develop their techniques so

they can continue to bring justice to victims after U.S. involvement in this program ended.

In St. Louis, Dr. Trimble is the Chief of the Curation and Analysis Branch for the District and Director the Mandatory Center of Expertise for the Curation and Management of Archaeological Collections for the U.S. Army Corps of Engineers worldwide.



Ecosystem restoration

Project on Lower Obion River seeks to restore area's original condition

by Shawn Phillips

Customers for the Army Corps of Engineers have typically been levee and drainage districts, levee boards, municipalities, the navigation industry, and users of reservoirs for power, recreation, water supply, or flood protection. But as the limited natural resources of our nation become more and more taxed by human development, we are adding more natural resource agencies to that customer list.

The Tennessee Wildlife Resource Agency (TWRA) is one of these customers. We are working with them on the Lower Obion River ecosystem restoration project in Dyer County.

The Section 1135 project is a joint effort between TWRA and the Memphis District to restore 2,250 acres of lands to the conditions that existed prior to channel work on the Lower Obion River. The Section 1135 program seeks to restore habitats and ecological systems that previous Federal water resource activities have degraded.



Jon Wilson (kneeling) and Lawrence Thomas (standing) obtain information from an irrigation pump used to bring water to a waterfowl ponding area.



TWRA first asked the Corps to assist by making these landscape changes on five tracts of land, previously used for farming, in June 2000. The tracts are named Lecklitner, Sykes, Heckathorn / McCullough, and Meeks. A construction contract was awarded in September 2007 for the first three tracts, and the design for the last tract, Meeks, is underway. The overall project cost is estimate at about \$4 million and should be completed in 2009. The TWRA site manager is Patrick Lemons and the regional supervisor is Carl Wirwa. The Project Team within the Memphis District is Matthew Turner, Jon Wilson, Neal Newman, Kevin Keller, Doug Young, Estella Blackman, Gregg Williams, Jackie Whitlock, Lawrence Thomas, Jimmy McNeil, and Shawn Phillips. Retiree Richard Hite was the original Study Manager.

These lands, located west of Dyersburg near the Mississippi River, were once frequently flooded bottomland hardwoods like those that existed up and down the Mississippi River Delta prior to land clearing and draining done for agricultural purposes.

Channelization of the Obion River for flood control purposes has also dried a lot of these frequently flooded areas.

The objective of ecosystem restoration is to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition.

Restored ecosystems should mimic, as closely as possible, conditions which would occur in the

area in the absence of human changes to the landscape and hydrology.

The particular restoration objectives for this project sought by TWRA and the Corps are to reforest bottomland hardwoods, restore wetland conditions, and restore waterfowl habitat on four land tracts.

We plan to do this by several means, including:

- Planting trees and encouraging natural reforestation
- Constructing ponding and water retention areas
- Planting native grasses and wetland plants, and
- Installing wells for water production at times when Mother Nature does not provide adequate rain to meet the habitat needs of wetland species.



Memphis District completes successful regional floodfight, staying vigilant

by Jim Pogue

The Memphis District, U.S. Army Corps of Engineers Thursday (April 24) officially ended its floodfighting efforts on the Mississippi River and the White River in Arkansas. Floodfighting on the Mississippi River began March 19 in the Missouri Bootheel. The flooding later extended into the area around Dyersburg, Tenn., and along the White River in Arkansas. Some assistance was also provided to areas in northern Mississippi which experienced localized flooding.

“We are relieved the sustained flood stages which began in March 2008 appear to be receding and are proud to have stood side by side with local communities to prevent and mitigate the impact of this flooding,” Col. Tom Smith, commander of the Corps’ Memphis District said. “Our task now turns to restoring and improving the flood control system so important to our region.”

The Missouri and Tennessee areas reached a Phase II floodfight status later in the month prompting the Corps to establish field offices in Cape Girardeau, Mo., with eight Corps emergency workers on duty there, seven workers on duty at the office in Caruthersville, Mo., and nine workers at an office in Dyersburg, Tenn.

During Phase II floodfight activities, Corps of Engineers personnel closely monitor flood control works including levees, floodwalls and pumping stations. They also make technical and materiel assistance available to local communities and flood control organizations to aid them in their floodfighting efforts.



Loy Hamilton stands knee-deep in water during the White River flood fight. This boil, contained using a 55 gal barrel, was in Mile 1 of the White River Augusta to Clarendon levee. (photo by Jon Wilson)

On the White River, flooding never exceeded the Phase I status level. The Corps monitored the flood control works and worked closely with local authorities there. They coordinated these efforts out of the Memphis District’s Wynne, Ark., Area Office.

During the current flooding, Memphis District Emergency Operations officials distributed 188,000 sandbags to city and other local officials in Missouri, Arkansas, Tennessee and Mississippi. The District also loaned 22 portable pumps to meet local and state needs.

These were used primarily to supplement the work done by existing permanent pump stations and other flood control works. To help protect

levees from wave wash and other erosion, the District also distributed 100,000 square feet of poly sheeting.

The Memphis District has obligated \$1.4 million on the current floodfight. The Mississippi River had dual crests of about the same flood stage elevations during the end of March 2008 and again in the middle of April 2008. With these events occurring two weeks apart, the Mississippi River’s Main Line Levee System within the Memphis District prevented flood damages estimated at \$4.2 billion.

The Corps of Engineers will continue to monitor river levels throughout the spring and will respond as necessary should river levels again rise above flood stage.



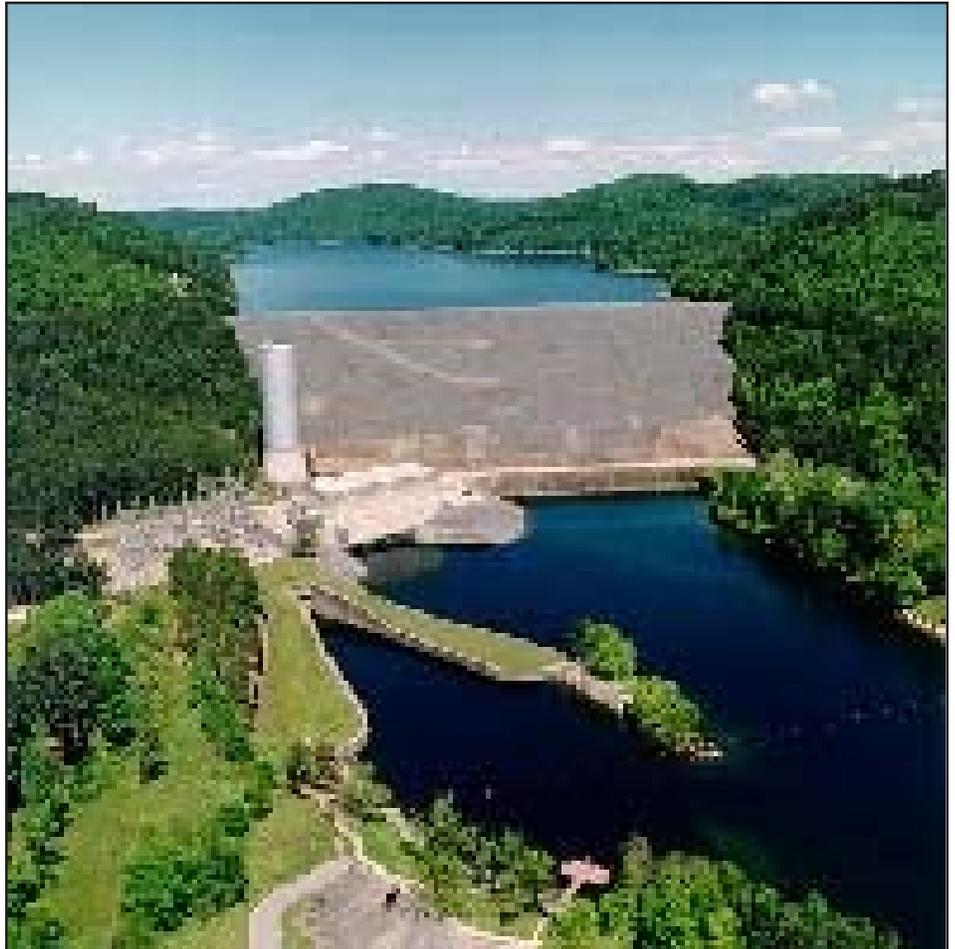
Blakely Mountain Dam

Based next to Blakely Mountain Dam at Lake Ouachita, the Ouachita Project Office oversees the operations of Lakes Ouachita, DeGray and Greeson.

Within area of responsibility are 5 critical missions: Flood Damage Reduction, Hydropower, Environmental Stewardship, Water Supply and Recreation. These lakes and the missions they fulfill have a powerful impact on the people and economy of Arkansas.

No one mission is more important than another. All work together in a delicate tapestry to benefit the people of this state, and the Nation. We welcome visitors to our lakes, and urge them to keep in mind the multiple missions and responsibilities of our projects and staff.

Since 1953 Blakely Mountain Dam has stood a silent watch over Lake Ouachita. Providing hydropower, recreation, water supply and environmental stewardship, the Dam represents nearly every mission conducted by the Corps of Engineers.



As this project ages, just like us humans, its time to keep a closer eye on how it performs.

Its age coupled with a recently discovered potential problem have led the Corps of Engineers to begin work on a new monitoring system for the dam. The system will closely monitor seepage through the structure.

While all earthen dams seep and are designed to do so, this potential issue makes it important to monitor seepage and its effects more closely to ensure that Blakely Mountain Dam and lake Ouachita are around for generations to come.

While we keep a more watchful eye on Blakely Dam, today we also face the difficult task of matching service to funding, amid a growing list of critical maintenance items for our facilities.

We are working closely with our stakeholders, the Arkansas Congressional delegation and local officials to find long term solutions to those problems.

Together we will succeed in keeping these lakes and facilities open and operational for generations to come.



America's greatest river: the Mighty Mississippi

Without question America's greatest river, the Mississippi, has made major contributions to the physical and economic growth of the nation. It is a navigation artery of great importance to the nation's transportation system, carrying an ever-growing commerce.

Coursing through the heart of America, it supplies water for the cities and industries that have located along its banks. More and more, the Mississippi's importance is emphasized as America continues to grow. This great river is truly one of the nation's outstanding assets.

Uncontrolled, it would be just as great a liability.

In its natural condition, the Mississippi River regularly overflowed its banks and meandered back and forth across the floodplain. For hundreds of years, Native Americans accepted the whims of the river and adapted to its patterns. The arrival of European settlers in the early 1700s, however, brought a radically new perspective on the river's habits. The river's tendency to flood was a serious hindrance to settlement and development—a problem which demanded solutions.

Early inhabitants began constructing earthen levees along the river's banks to contain the flow to protect residents and developed property.

The French built levees to protect New Orleans as early as 1717. At the turn of the 19th century, a crude system of levees extended for 100 miles upriver of New Orleans, with individual landowners constructing and maintaining the levees.



Stacking barges along the Mississippi River

By the 1830s, states were becoming involved in flood damage reduction on the Mississippi River through both direct funding and the creation of levee boards. These boards took over levee construction and maintenance with funds acquired from taxes on landowners.

Despite these efforts, flooding continued throughout the 19th century with major floods in 1844, 1850, 1858, 1862, 1865, 1867 and 1874.

Some of these floods were immense, causing great misery and destruction along the river. As a result of these floods and the ravages caused by the Civil War, the levee system was in a devastated condition by the 1870s, and appeals for federal involvement grew with each flood event.

Since 1879, U.S. Army Corps of Engineers was responsible for keeping the river open for navigation, but had little role in flood control until Congress established the Mississippi River Commission (MRC) in 1879.

The MRC, initially headquartered in St. Louis, MO, relocated to Vicksburg, MS, in 1929. It was charged with developing and implementing a comprehensive plan to improve navigation and prevent destructive floods.

Engineering studies of the river were undertaken and many improvements to navigation were accomplished. In the area of flood control, the MRC assisted local levee boards by developing reliable levee standards and new construction techniques. Actual construction of flood damage reduction features by the MRC, however, was severely limited by congressional directives and largely confined to repairing crevasses.

Initial federal involvement significantly improved flood protection but it was still less than satisfactory.

Great floods in 1882 and subsequent were overtopped or crevassed.

These disasters and the rising flood heights between the levees caused many to question the total reliance on building levees to contain the river's flood waters. Other approaches to improving flood protection — reforestation of the floodplain, cut-offs to speed up the river's flow, reservoirs to hold back flood waters, and floodways to divert flows away from the main channel were suggested but always rejected by the MRC in favor of a "levees only" policy.

(see MRC, next page)



-MRC-

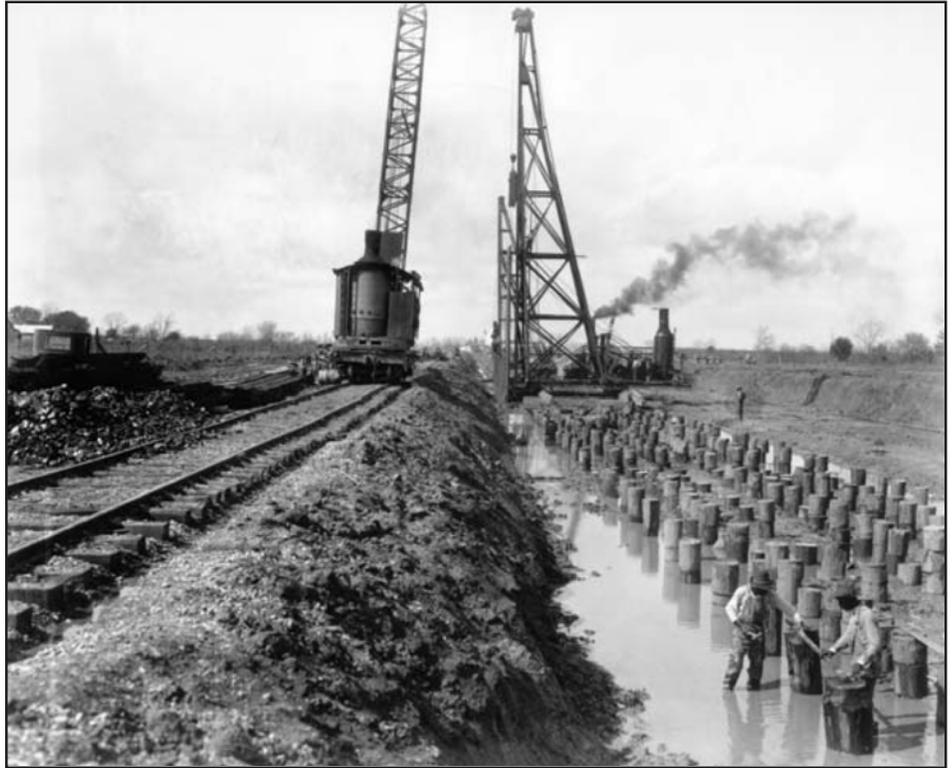
The MRC's role grew with each flood, finally culminating in the Flood Control Act of 1917, which authorized the MRC to construct an extensive program of flood protection with costsharing by states and local interests.

The program maintained the "levees only" approach and included new levee construction and strengthening of existing levees to standards set three feet above the high water of 1912.

By the end of 1926, the improved levee system had successfully passed several major high water events. These successes convinced the MRC and the public that the flood control problem was nearly solved.

The false sense of security in the Lower Mississippi Valley vanished in the flood of 1927, a natural disaster of great proportions. This tremendous flood extended over nearly 26,000 square miles, killed more than 500 people and drove an additional 700,000 from their homes.

Thirteen crevasses in the main Mississippi River levees occurred, demonstrating that even the largest and strongest levees would not alone protect from flooding.



Construction of the Bonnet Carré Spillway, 1929

To prevent a recurrence of the 1927 flood, Congress authorized the Mississippi River and Tributaries Project (MR&T) in the Flood Control Act of 1928. The "levees only" policy of the past was discarded and the U.S. Army Corps of Engineers adopted a new approach based on improved levees plus floodways, including a spillway to divert water into Lake Pontchartrain above New Orleans.

Today the MRC provides water resources engineering direction and policy advice to the Administration, Congress, and the Army in a drainage basin that covers 41 percent of the drainage from the 48 contiguous United States and parts of two Canadian provinces by overseeing the planning and reporting on the improvements on the Mississippi River.

The intent behind the mission of the MRC today is the same as the mission placed on the commission upon its creation—to lead sustainable management and development of water related resources for the nation's benefit and the people's wellbeing.

The current members of the MRC are President Brig. Gen. Michael Walsh, Sam Angel, R.D. James, William Clifford Smith, Rear Adm. Jonathan Bailey, Brig. Gen. Bruce Berwick, Col. Albert Bleakley Jr., and Brig. Gen. Gregg Martin.

For more information on the MRC, visit this Web site:
<http://www.mvd.usace.army.mil/mrc>.