



Maj. Gen. Michael J. Walsh
President-Designee



Hon. Sam E. Angel
Member



Hon. R. D. James
Member



Hon. Wm. Clifford Smith
Member-Designee



Rear Adm. Jonathan W. Bailey
Member-Designee



Maj. Gen. John W. Peabody
Member-Designee



Brig. Gen. John R. McMahon
Member-Designee



Mississippi River Commission

Executive Summary 382nd, 383rd & 384th Sessions

Listening, Inspecting, Partnering & Engineering since 1879



Mississippi River Commission

www.mvd.usace.army.mil/mrc/

The Mississippi River Commission has a proud heritage that dates back to June 28, 1879. Congress established the seven-member presidential Commission with the mission to transform the Mississippi River into a reliable commercial artery, while protecting adjacent towns and fertile agricultural lands from destructive floods. The 1879 legislation that created the Commission granted the body extensive planning authority and jurisdiction on the Mississippi River stretching from its headwaters at Lake Itasca to the Head of Passes, near its mouth at the Gulf of Mexico.

The Mississippi River Commission quickly assumed the role of an active Federal agent capable of transcending the regional issues that had previously hampered the development of a more effective river improvement system. The Commission began improving the navigation channel to promote commerce, setting standards for

levee construction, and holding public hearings to give local interests a greater voice in shaping federal policy.

In its current capacity, the Mississippi River Commission prosecutes the Mississippi River & Tributaries (MR&T) project authorized by the 1928 Flood Control Act. The MRC is focused on watershed priorities and is carrying out a 200-year working vision (see enclosed).

The MR&T project employs a variety of engineering techniques, including an extensive levee system to prevent disastrous overflows on developed alluvial lands; floodways to safely divert excess flows past critical reaches so that the levee system will not be unduly stressed; channel improvements and stabilization features to protect the integrity of flood

control measures and to ensure proper alignment and depth of the navigation channel; and tributary basin improvements, to include levees, headwater reservoirs, and pumping stations, that maximize the benefits realized on the main stem by expanding flood protection coverage and improving drainage into adjacent areas within the alluvial valley. Since its initiation, the MR&T program has brought an unprecedented degree of flood protection to the approximate 4 million people living in the 35,000 square-mile project area within the lower

Mississippi Valley. The nation has contributed \$13.3 billion toward the planning, construction, operation, and maintenance of the project. To date the nation has received a 27 to 1 return on that investment, including \$360.4 billion in flood damages prevented.



The Mississippi River Commission continued its 130-year process of listening to the concerns of partners and stakeholders in the Mississippi valley, inspecting the challenges posed by the river, and partnering to find sustainable engineering solutions to those challenges through the 2010 High-Water and Low-Water Inspections (382nd & 383rd Sessions of the Mississippi River Commission). The official record of the Proceedings of the Mississippi River Commission, complete with recorded hearings of public meetings, copies of signed formal statements provided by the public, executive summaries of the Proceedings, and other documents of significance, are kept on file in the Office of the President in Vicksburg, Miss.



April 12-16, 2010

382nd Session of the MRC

The Mississippi River Commission conducted its 382nd Session from April 11 through April 16, 2010, onboard the motor vessel *MISSISSIPPI* en route from Cairo, Ill., to Baton Rouge, La., as part of the annual High-Water Inspection trip. The Commission held public hearings at Cairo, Memphis, Tenn., Natchez, Miss., and Baton Rouge. More than 220 members of the public attended the meetings.

The Members of the Mississippi River Commission present during the 382nd Session included:

- **Brig. Gen. (P) Michael J. Walsh**, who assumed command as Commander, Mississippi Valley Division, and President Designee of the Mississippi River Commission on February 20, 2008
- **Mr. Sam E. Angel**, reappointed as a member on November 15, 1999
- **Mr. R. D. James**, civil engineer, reappointed as a member on April 16, 2003
- **Mr. William Clifford Smith**, civil engineer, appointed October 22, 1998 and
- **RADM Jonathan W. Bailey**, National Oceanic and Atmospheric Administration, designated as a member on October 6, 2007

Maj. Gen. John W. Peabody, Commander, Great Lakes and Ohio River Division, designated as member on August 4, 2008, and **Brig. Gen. John R. McMahon**, Commander, Northwestern Division, designated as a member on November 20, 2009, were unable to attend.

Col. George T. Shepard served as Secretary of the Commission, which is a non-voting position.





High-Water Inspection Trip Report

Sunday, April 11, 2010

382nd Session of the MRC

The 382nd Session convened onboard the *MISSISSIPPI* in Cairo. Brig. Gen. Walsh introduced new members of the Commission staff.

Stephen Gambrell, Executive Director of the Mississippi River Commission provided an overview of the inspection trip schedule and objectives, as well as a look at the long-range calendar.

Mark Mazzanti, Director of Programs, updated the Commission on developments with the Corps of Engineers levee certification process, the Inland Waterway Trust Fund capital projects business model, and the Council on Environmental Quality (CEQ) roadmap for restoring ecosystem resiliency and sustainability.

Edward Belk, Chief of Programs, provided the Commission with a summary of funding trends and program information.

Charles Shadie, Chief of Watershed Management Division, delivered a detailed analysis of river conditions, the NOAA flood potential assessment, precipitation forecasts, reservoir storage capacity, and a comparison of the 1973, 1997, 2008, 2009, and 2010 hydrographs. Mr. Shadie informed the Commission that the National Weather Service is predicting that the current El Nino pattern will transition to a neutral pattern by mid summer, which increases the chances that a hurricane would make landfall along the Gulf of Mexico from 30 percent to 44 percent.

Jim Hannon, Director of Regional Business, updated the Commission on developments with the 200-year vision for the Mississippi watershed and an update on National Levee Safety Program and MR&T levee certification.

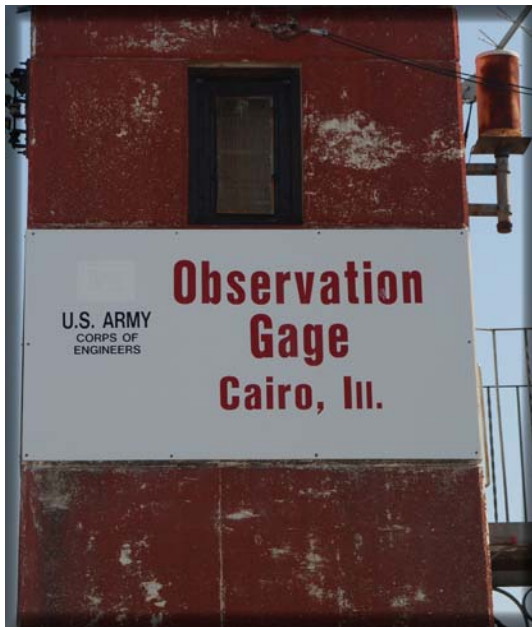




Col. Thomas Smith, Commander of the Memphis District, provided a detailed briefing on the status, schedules, and issues with regard to American Recovery and Reinvestment Act (ARRA) and MR&T projects within his area of operations. Col. Smith reported that of the 92 ARRA projects in the Memphis District, all have contracts awarded and 38 projects were completed.



He also informed the Commission that the restoration of the site of the St. John's Bayou – New Madrid Floodway project would be complete by October 2010. In the meantime, the district has commenced with preparing additional NEPA analysis that will be accomplished in four phases: review of past NEPA documentation, development of a project work plan, a draft Environmental Impact Statement (EIS), and a final EIS. The review of NEPA documentation was completed in January 2010, the draft project work plan completed in February, and the Notice of Intent to prepare an EIS was published in the Federal Register on April 6, 2010. The current schedule for completion of all four phases is December 2012.



the Engineer Research and Development Center received funding to continue the fish passage study through the existing St. John's Bayou gravity outlet structure and that the district is coordinating with representatives from The Nature Conservancy and U.S. Fish and Wildlife Service involved with the Emiquon Wildlife Refuge project, where similar structures are planned. The Commission recommended this cooperation in its report covering the 381st session after a tour of the project during its inspection of the Illinois River.



High-Water Inspection Trip Report



High-Water Inspection Trip Report

Monday, April 12, 2010

382nd Session of the MRC

The Commission held a public meeting in Cairo with approximately 45 members of the public in attendance. The purpose of the meetings is to maintain a dialogue



and exchange ideas and viewpoints with the public to allow local citizens and governments a greater voice in shaping federal policy. Issues discussed by the presenters included FEMA flood zone mapping, levee certification, the St. John's Bayou – New Madrid Floodway project, the need for harbor dredging and maintenance supported by sufficient appropriations, and a host of needed repairs and maintenance items.



The Commission travelled to the MR&T mainline levee at Hickman, Ky, for an on-site briefing and discussion of the Corps of Engineers' levee safety policy. Corey Williams, the Memphis District geotechnical advisor to the Fulton County Levee Board briefed the Commission on the condition of the levee, which recently experienced sandboils

during the recent highwater event. David Weatherly and Jim Mayor, the president and vice president of the Fulton County Levee Board, and David Gallagher, the Fulton County Executive, also attended the briefing. The on-site briefing not only clarified the differences between the evaluations and the periodic inspections, but gave the Commission a better understanding of the complexities involved with the levee evaluation criteria used in the levee safety program. The Corps role in FEMA's National Flood Insurance Program has evolved from providing assurances that MR&T levees are high enough to withstand a 100-year event to preparing evaluation reports that require more extensive hydraulic, geotechnical and structural analysis, and assurances that the levees will perform as designed.





High-Water Inspection Trip Report

Tuesday, April 13, 2010

382nd Session of the MRC



More than 70 members of the public attended the Commission's public meeting at Memphis.



Issues and concerns discussed by the presenters included FEMA flood zone mapping, levee certification, dredging in the Memphis port, aquifer depletion, and the East Arkansas Enterprise Community.



While traveling down the river on the *MISSISSIPPI*, the Commission discussed and received status updates on a number of ongoing Commission initiatives and related items to include the Memorandum of Understanding with Mekong River Commission, the Upper Mississippi River Comprehensive Plan for flood control, the draft Executive Order for floodplain management; the use of diversions in coastal Louisiana, and the Section 108 Missouri River Authorized Purposes Study.





High-Water Inspection Trip Report

Wednesday, April 14, 2009

382nd Session of the MRC

Col. Jeffrey Eckstein, Commander of the Vicksburg District, updated the Commission on the status of the district's funding trends, to include ARRA funding. Col. Eckstein briefed the Members on a number of MR&T related issues and projects within his area of operations, including funding for MR&T and O&M port maintenance and dredging, an update on MR&T levee construction and levee slide repair, status of levee system evaluation reports, the Yazoo Basin Reformulation Study, Upper Yazoo projects, and the Ouachita Basin levees. Col. Eckstein also updated the Commission on data collection on streamflow, rainfall events, floods, and other hydrologic information being gathered in the valley.



Upon arriving at the Vicksburg riverfront, the Commission travelled to the Engineer Research and Development Center (ERDC) for a series of informative briefings. Dr. Beth Fleming, the Director of the Environmental Laboratory, provided an overview of the purpose and impact of environmental studies being done in support of MVD activities in south Louisiana.



Bruce Ebersole, the ERDC Chief of the Flood and Storm Protection Division, discussed Coastal and Hydraulic Laboratory activities in south Louisiana and an overview of the West Bay diversion investigation. Dr. Barb Kleiss, Director of the Louisiana Coastal Authority Science and Technology Office, updated the Commission on the topic of Mississippi River diversions and plans for the Mississippi Hydro Study. The Commission followed with a tour of the Lake Borgne and Seabrooke physical models at ERDC. While the Members received briefings at ERDC, the Commission and district staff hosted an open house and public tours of the *MISSISSIPPI*. More than 50 members of the public received a water resource engineering education on the *MISSISSIPPI*.



Thursday, April 15, 2010

382nd Session of the MRC

Approximately 50 members of the public attended the Commission's public meeting at historic Natchez. Issues and concerns discussed by the presenters included dredging and maintenance problems regarding the Ouachita River Navigation



Project, Ouachita River levees, levee certification, MR&T levee repairs and needs, the EPA veto of the Yazoo Backwater Project, small harbor dredging and coastal restoration in Mississippi and Louisiana.

Following the public meeting, Col. Alvin Lee, Commander of the New Orleans District, briefed the Commission on the status, schedules, and issues

relating to MR&T general investigations, feasibility studies, and construction projects within his area of operations, as well as non-MR&T items such as the IHNC Lock, Mississippi River dredging, and ecosystem restoration. The Commission also received a briefing on the New Orleans District's practices and efforts with the beneficial use of dredged material.

Deborah Lee, Chief of Water Management Division, for the Great Lakes and Ohio River Division, provided the Commission a detailed briefing covering dam safety in the Cumberland River system, flood control operations in LRD and how they impact the MR&T project, water control modernization efforts, and the update to the lower Ohio/Mississippi River water control manual.



The New Orleans District staff provided the Commission with an interim status update on current and future of co-located Mississippi River Levees and Hurricane Storm Damage Risk Reduction System projects and a briefing on 2011 considerations for HSDRRS certification.



High-Water Inspection Trip Report

Friday, April 16, 2010

382nd Session of the MRC

Fifty-five members of the public attended the public meeting in Baton Rouge. Presenters at the hearing discussed a broad array of topics that centered on the need for the Morganza to the Gulf project, coastal restoration through Mississippi River diversions, aquifer depletion, sediment loads, increased costs of dredging, and the need to maintain deep draft navigation.

Following the public meeting, the Commission traveled to Louisiana State University for a series

of presentations from representatives of the Department of Oceanography and Coastal Sciences and the Department of Civil and Environmental Engineering. Topics addressed during the presentation included challenges involving sediment,

sea level changes, and subsidence; modeling river diversions and wetland erosion; and the link between science, engineering, and design.





Levee Certification

382nd Session of the MRC

During the past several inspection trips, the public has voiced great concern about the levee certification process and the Corps role in the FEMA National Flood Insurance Program. That trend continued at the public meetings held during the 382nd session of the Commission at Cairo, Memphis, Natchez, and Baton Rouge.

One major focal point of this concern is the use of "Shaded Zone X" which brings attention to flood risks in areas served by levees designed to protect against the Mississippi River and Tributaries (MR&T) project design flood which is greater than the 100-year or 1% flood event. The locals are concerned that the designation may negatively affect existing and potential businesses, as well as local home and property owners.

Another expressed concern is the potential impact that routinely-used underseepage maintenance practices during high-water periods may have on levee certification for the National Flood Insurance Program (NFIP). While flood fighting and seepage control are vital components of the operations and maintenance process carried out by the local sponsors, under the levee certification process both may impact levee status. Local levee districts remain adamant that flood fighting and seepage control should be considered in the levee certification process. This, in fact, is done.

The local project sponsors believe they need additional time for implementation of the new standards under the levee certification process. They realize they have a shared responsibility to adjust their maintenance schedule to come into compliance

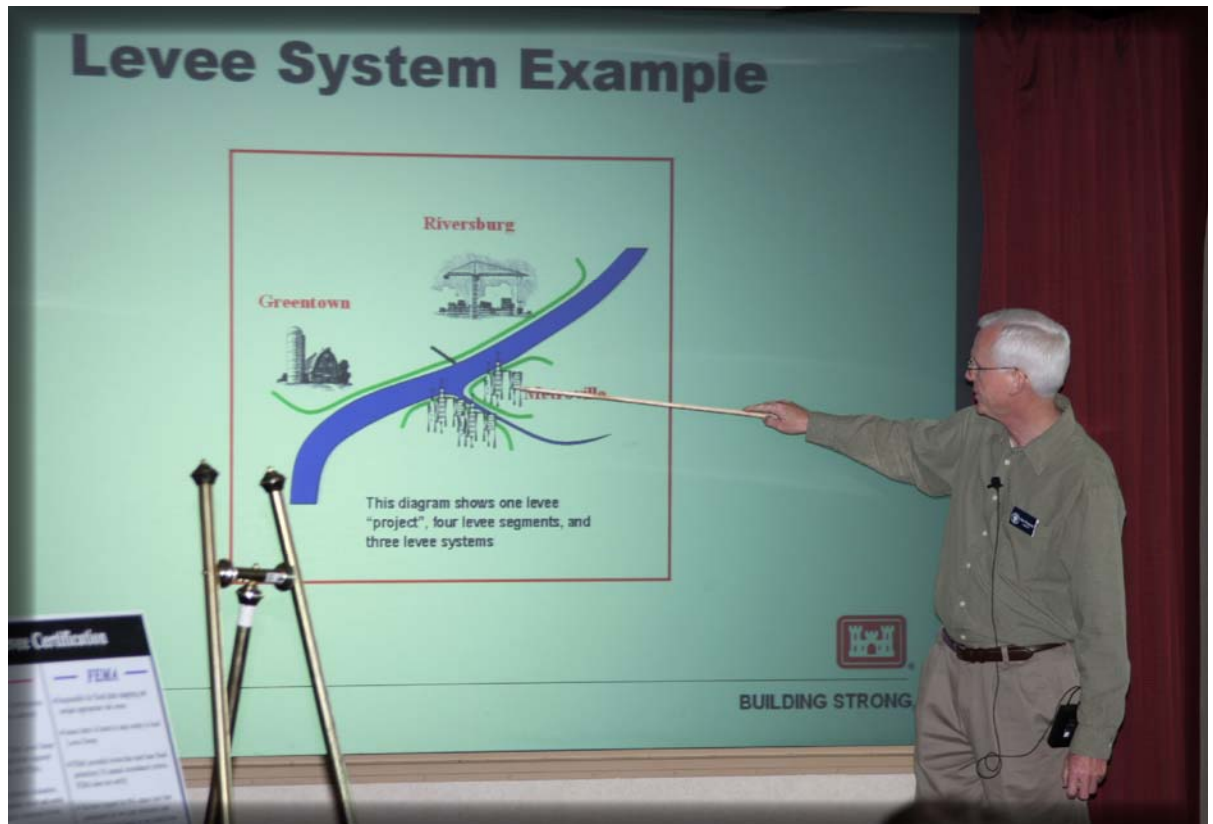




High-Water Inspection Trip Report

with the new regulations, however, they believe the Corps has the responsibility to take the time to implement the new standards in an effective manner conducive to protecting the valley and the nation's investments.

In response, the Commission asked the Corps of Engineers to provide information briefings covering the Levee Safety Program and Mississippi River Levees and the 100-year Level of Protection to partners and stakeholder during the inspection trip. Bob Fitzgerald, the Mississippi Valley Division Engineering Chief, and Charles Shadie, Chief of the Watershed Management Division, provided the briefings on Monday en route from Cairo to Hickman, Tuesday en route from Memphis to Tunica, and on Wednesday en route from Mayersville to Vicksburg. More than 80 people attended the briefings.



The purpose of the briefings was to allow the Corps of Engineers to explain the vision of the levee safety program that is designed to ensure safe and reliable flood control system, effectively communicate potential risks (hazards, system performance and consequences) to those protected by flood control systems, and to assess all systems in a comprehensive and continuing program. The briefings further allowed the Corps of Engineers to demonstrate the differences between periodic inspections and levee evaluations and to illuminate responsibilities, authorities, and requirements for accreditation and the facts concerning de-accreditation.

Discussions with briefing recipients revealed that the following actions addressing levee safety evaluations could alleviate the majority of public concerns with the levee certification process:



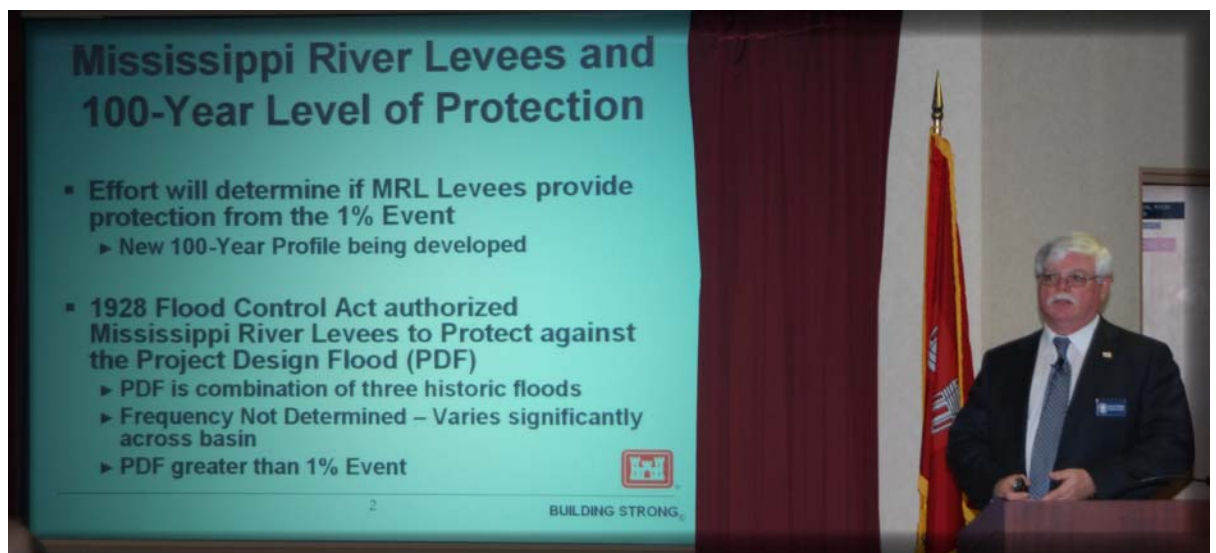
High-Water Inspection Trip Report

- Acknowledgement that the MR&T mainline levee system is designed to protect against a project design flood that exceeds the 1% flood event.
- Acknowledgement that underseepage is expected during high-water events and that the management of underseepage is accounted for in the design of MR&T levees.
- Acknowledgement that systems must be operated, maintained, evaluated, and managed in accordance with the design of the levee system.
- Acknowledgement that evaluations of acceptable, minimally acceptable and unacceptable must be performed and assigned based on the design and performance of the levee system. If the levee is performing within the parameters and assumptions of the design then the rating is acceptable.
- A timeline for full deployment of the National Levee Safety Program to include the levee screening process that leads to the prioritization of the levee systems with the highest risk.

The stated vision of the levee certification process is to ensure safe and reliable systems, effectively communicate risks, and to assess all systems in a comprehensive and continuing program. Public safety is the first priority.

The Mississippi River Commission acknowledges that the MR&T system is not complete and does not protect our nation from the project design flood. We will wait for the inspection to determine if the system delivers a 100-year level of protection or greater in the areas behind the mainline Mississippi River levee.

If so, this only adds to the urgency of the Commission to present the need for annual MR&T appropriations that meet full capabilities to accomplish critical work.





MISSISSIPPI RIVER COMMISSION

VICKSBURG, MISSISSIPPI

April 16, 2010

MISSISSIPPI RIVER COMMISSION
P.O. BOX 80
VICKSBURG, MISSISSIPPI 39181-0080

STATEMENT OF THE MISSISSIPPI RIVER COMMISSION RIVER DIVERSIONS

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Valley Division*
Vicksburg, Mississippi

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*Honorable Wm. Clifford Smith
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Congress created the Mississippi River Commission with the mandate to remake the Mississippi River into a safe and reliable commercial artery while protecting adjacent lands from overflow. Section 4 of the 1879 Act granted this Commission extensive authority as follows:

It shall be the duty of said commission to take into consideration and mature such plan or plans and estimates as will correct, permanently locate, and deepen the channel and protect the banks of the Mississippi River; improve and give safety and ease to the navigation thereof; prevent destructive floods; promote and facilitate commerce, trade, and the postal service...

More than 130 years later, this Commission with its partners and stakeholders, has realized this ambitious assignment through the implementation of the comprehensive Mississippi River and Tributaries (MR&T) project. Since its initiation, the MR&T project has brought an unprecedented degree of flood protection to the lower Mississippi valley, while facilitating navigation and promoting commerce on the nation's vital commercial artery.

The Mississippi River Commission has authority under Section 14 of the 1899 Rivers and Harbors Act, Sections 8 and 9 of the 1928 Flood Control Act, and Division Regulation 415-2-3, to manage and approve proposed alterations to the flood control features of the MR&T project.

Since 1879, the seven-member Presidentially appointed Mississippi River Commission has developed and matured plans for the general improvement of the Mississippi River from the Head of Passes to the Headwaters. The Mississippi River Commission brings critical engineering representation to the drainage basin, which impacts 41% of the United States and includes 1.25 million square miles, over 250 tributaries, 31 states, and 2 Canadian provinces.

Listening, Inspecting, Partnering and Engineering since 1879

Recent studies in the vicinity of Myrtle Grove, Magnolia, Venice, and the Head of Passes, which include detailed field analysis and model simulation by the USACE Engineer Research and Development Center, the University of Louisiana-Lafayette, the University of Texas, and other noted scientists and engineers, have demonstrated the complexity of the hydraulics and sediment transport in the lower Mississippi River.

This Commission believes that sound engineering should follow science. Considering our mandate to provide a safe and reliable navigation channel and our obligation to approve all alterations to the MR&T project, this Commission recommends that any future diversions on the Mississippi River be constructed so that they can be controlled, modified, and monitored.



383rd Session of the MRC

Arkansas River Watershed

Low-Water Inspection Trip Report

The management of the major sub-basins comprising the Mississippi watershed directly impacts the operations and decisions of the Mississippi River Commission in prosecuting the MR&T project. The Commission reviewed and inspected the upper Mississippi River Basin ten times between 1997 and 2008, the Ohio River Basin in 2005, the Missouri River Basin in 2007, the Illinois River Basin in 2009, and the Arkansas-White Basin in 2010. The reviews of these river systems aid the Commission and stakeholders throughout the watershed in a unified attempt to garner national recognition for a widely endorsed working vision for America's watershed.



The 2010 visit to the Arkansas-White basin was a historic first. For nearly 100 years, the Commission has supervised levee and revetment operations on the lower 92 miles of the Arkansas River under the authority of the 1916 Rivers and Harbors Act, but it had not completed a system-wide inspection of the watershed until the 383rd session. Stakeholders in the region warmly welcomed the Commission's presence in the Arkansas-White basin. Basin stakeholders and Corps of Engineers staff commented repeatedly that the Commission's presence in the basin and the publicity that came as a part of the historic trip helped to reconnect people with the river and, as a result, provided impetus for further engagement



between the public and the federal and state stewards of the river. More than 500 members of the public visited and toured the motor vessel *MISSISSIPPI*, the flagship of the Mississippi River Commission, as it traveled upriver in advance of the inspection trip in preparation to receive the Commission and transport the members and staff to the Mississippi River. Hundreds more lined up at the lock and dam



structures to view the *MISSISSIPPI* as the vessel returned downstream. During the trip, the Commission engaged with, listened to, and shared information with more than 1,000 stakeholders and partners from Tulsa, Okla., to Rosedale, Miss.



Sunday, August 8, 2010

383rd Session of the MRC

The 383rd session of the Commission commenced on August 8 at the northernmost point of navigation on the McClellan-Kerr Arkansas River Navigation System—the Tulsa Port of Catoosa on the Verdigris River. The members of the Mississippi River Commission present during the inspection of the Arkansas-White basin were:

- **Maj. Gen. Michael J. Walsh**, Commander, Mississippi Valley Division, and President Designee of the Mississippi River Commission
- **Hon. Sam E. Angel**, reappointed as a member on November 15, 1999
- **Hon. R. D. James**, civil engineer, reappointed as a member on April 16, 2003
- **Hon. William Clifford Smith**, civil engineer, appointed October 22, 1998, and
- **Rear Adm. Jonathan W. Bailey**, National Oceanic and Atmospheric Administration.

Maj. Gen. John W. Peabody, member designee and Commander, Great Lakes and Ohio River Division; and **Brig. Gen. John R. McMahon**, member designee and Commander, Northwest Division were unable to attend. **Col. George T. Shepard** served as the non-voting Secretary of the Commission.

Mr. Bob Portiss, port director of the Port of Catoosa, guided the Commission on a tour of the 3,000-acre facility. The port moves an average of 2 million tons of waterborne commerce per year. Following the tour, Col. Thomas Kula, the Southwest Division Commander, welcomed the Commission to the basin and introduced Col. Michael Teague and Col. Glen Masset, the commanders of the Tulsa and Little Rock Districts. Colonels Teague and Masset provided an overview of the operations in their perspective districts and shared various issues that they anticipated the local stakeholders would likely discuss with the Commission.



The Commission ended the first day of the trip with a stakeholder dinner on the motor vessel MISSISSIPPI. Approximately 50 people attended the function, including representatives from the offices of U.S. Senators James Inhofe and Tom Coburn of Oklahoma, members of the navigation industry and area ports, state agencies, and the Arkansas Historical Society.





Monday, August 9, 2010

383rd Session of the MRC

The Commission continued engaging with regional stakeholders from the shipping, transportation, and hydropower industries. A panel of representatives from businesses and industries that rely on the major commodities shipped on the McClellan-Kerr navigation system followed by presenting their perspectives on the significance of the system to the economic well-being to the region and the system's interconnectedness with other inland waterways and other forms of intermodal transportation.

A second panel consisting of representatives from the Corps of Engineers and the river transportation industry briefed the Commission on the reliability and sustainability of the McClellan-Kerr system.

One of the biggest challenges facing the McClellan-Kerr system is the potential of a cutoff occurring between the Arkansas River and the White River entrance channel near the confluence with the Mississippi River. The cutoff would reduce the reliability of navigation the length of the entire system from the Tulsa Port of Catoosa to the Mississippi River. The briefing included impacts to the system if the problem is not corrected, ongoing study efforts, and a discussion of various alternatives to permanently correct the situation. Members from the navigation industry also presented their views on the need for the authorized 12-foot channel on the McClellan-Kerr system to be funded and constructed.



Another panel, comprised of hydropower industry representatives, briefed the Commission on power generation operations on the McClellan-Kerr system. The



Commission followed with a tour of the turbine replacement project at the Webber Falls hydropower plant at Lock and Dam No. 16.

Finally, a panel discussed the Panama Canal expansion currently underway and the expected impacts to the domestic inland waterway. The expansion, scheduled for completion in 2014, will allow larger containerized cargo vessels to pass to and from the Pacific and Atlantic oceans. The increase in containers is expected to cause the domestic rail industry to exceed its capacity and place additional stress on the interstate highway transportation system, which will open the door to greater container-on-barge shipping opportunities on the inland waterway system. The panel stressed that the rail, interstate, air, and waterborne transportation industries will need to work together to accommodate the growth of commerce, and that for the region to remain competitive, the authorized 12-foot channel on the McClellan-Kerr navigation system must be funded and constructed.



Tuesday, August 10, 2010

383rd Session of the MRC

Colonels Teague and Masset briefed the Commission on the concept of the “Northern Alliance”—the system approach employed by the Tulsa and Little Rock districts to manage the Arkansas River as one system. Through the Northern Alliance, the two districts share people, equipment, and resources. Channel maintenance, lock maintenance and budgetary items are prioritized as a system and executed jointly by the two districts. The districts placed the Northern Alliance concept into practice in 2004 and stakeholders have indicated that they have seen a noticeable improvement in the overall management of the system.



The Western Arkansas Regional Intermodal Transportation authority briefed the Commission on the short term and long term goals and projects in western Arkansas to promote economic development in the region through intermodal rail, truck, and river transportation. The Commission also received briefings covering cooperative efforts by the Fayetteville Shale Task Force to allow natural gas restoration without harming clear water streams and wetlands, the Arkansas Department of Natural Resources state water plans, Arkansas Tech University achievements in restoring interior least tern habitat along the river, and Arkansas Game and Fish Commission improvements to fisheries habitat and the control of invasive species.





Low-Water Inspection Trip Report

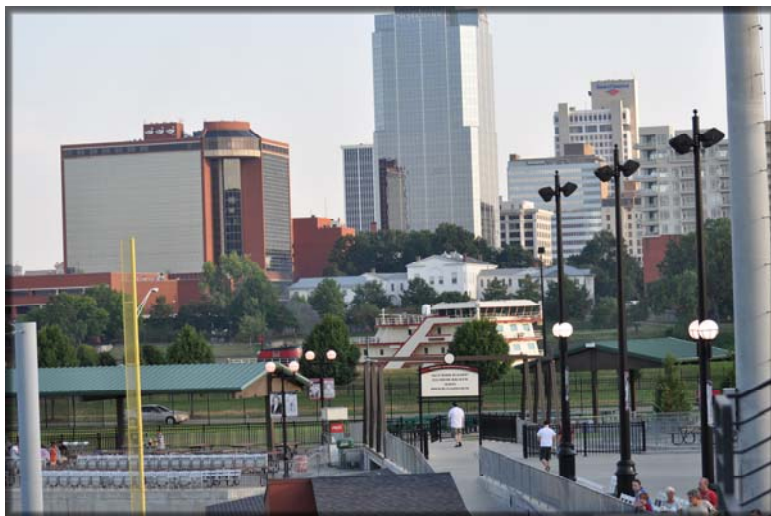
Wednesday, August 11, 2010

383rd Session of the MRC

U.S. Congressman John Boozman (AR-3), the ranking minority member on the Water Resources and Environment subcommittee on the Transportation and Infrastructure Committee, and representatives from the offices of U.S. Senator Blanche Lincoln of Arkansas and U.S. Congressman Vic Snyder (AR-2) boarded the *MISSISSIPPI*.



Congressman Boozman briefly addressed the stakeholders onboard and, like the Commission, spent the day listening and partnering with stakeholders.



A panel of stakeholders briefed the Commission on economic development opportunities in the state of Arkansas. The Arkansas Waterways Commission described its mission to protect and develop the 5 major rivers in the state—the Arkansas, White, Red, Ouachita, and Mississippi Rivers. The Arkansas Economic Development Commission discussed the strategic plan to bring jobs to the state. Energy

producers discussed clean energy options and the resultant economic opportunities in the state. Municipal, county, and state elected officials described the impact of the McClellan-Kerr navigation system on local economies. In the afternoon, a separate panel briefed the Commission on recreation and tourism opportunities along the Arkansas River system.

Following the briefings, the Commission attended an Arkansas Traveler's minor league baseball game at Dickey's Stephen's Stadium in Little Rock with local stakeholders. Maj. Gen. Walsh threw the ceremonial first pitch and the Mississippi River Commission received special recognition.





Low-Water Inspection Trip Report

Thursday, August 12, 2010

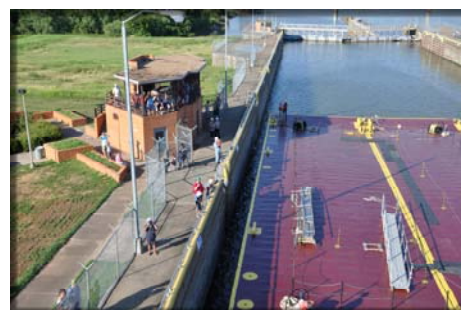
383rd Session of the MRC

Representatives from the offices of U.S. Congressman Mike Ross (AR-4) and U.S. Senator Blanche Lincoln boarded the *MISSISSIPPI* and joined the Commission for guided waterborne tour of the Little Rock Port. Afterwards a panel of stakeholders expressed their desire to preserve the heritage of the river in the form of a museum or visitor center that would tell the story of the people who built the system and the impact of the improvements. A separate panel presented their views on issues and concerns involving navigation and port authorities on the McClellan-Kerr system. The major concerns, similar to those heard by the Commission at other locations, centered on the need for a 12-foot channel, the potential impacts of the Arkansas-White cutoff, and the backlog of critical maintenance needs. Members of the Little Rock District staff followed with briefings on the district's water management mission, dam safety program, and the situation at the Arkansas-White cutoff region. A representative from the U.S. Fish and Wildlife Service briefed the members on the Three-Rivers Study (Arkansas, White, Mississippi) as a possible solution to the Arkansas-White cutoff.



The arrival of the *MISSISSIPPI* at Lock and Dam No. 4 effectively ended the inspection of the Arkansas-White basin in process if not in geography. While technically inside the Southwest Division area of river operations, the Commission transitioned to its traditional low-water inspection processes for the MR&T project. A representative from FEMA Region 6 briefed the Commission and stakeholders on the levee certification and accreditation process, to include how levee systems are analyzed and mapped from a national perspective. FEMA defined the responsibilities of the agency, the Corps, and levee owners.

Col. Jeffrey Eckstein, Commander of the Vicksburg District, briefed the Commission on the status of MR&T-related projects within his area of operations to include dredging, levee construction and slide repairs, national flood insurance program evaluation reports, the Delta Headwater Project and several Yazoo Basin projects and studies. Col. Eckstein also informed the Commission that funds from the American Recovery and Reinvestment Act were having a direct positive impact on MR&T construction in the Vicksburg District.





Low-Water Inspection Trip Report

Friday, August 13, 2010

383rd Session of the MRC

The Commission held a public meeting at Rosedale with more than 50 members of the public in attendance. The presenters represented not only Mississippi River interests, but also the Ouachita, Red, Texas, and Arkansas basins.



The majority of the discussion centered the maintenance dredging funding for small ports and harbors and the reduction of O&M funding levels for dredging. Several presenters drew attention to their concerns with regard to levee certification, changes in the levee rating system during the Corps of Engineers inspection process, and continued apprehension with the note accompanying Shaded Zone X on FEMA maps.



The Commission also received testimony from local sponsors of the Yazoo Backwater Project in support of the Mississippi Levee Board's lawsuit against the Environmental Protection Agency section 404 (c) veto and their determination to see the project to fruition.





Sunday, August 15, 2010

383rd Session of the MRC

The Mississippi River Commission reconvened the 383rd Session on August 15, 2010, onboard the motor vessel *MISSISSIPPI* in route from Cape Girardeau, Mo., to Houma, La. The Commission held a public hearing at Rosedale during the first week of the trip and hearings at Cape Girardeau, Memphis, Tenn., and Houma during the second week. Approximately 250 people attended the four public meetings. The purpose of the public meetings is to maintain a dialogue, an exchange of viewpoints and ideas flowing between the public, stakeholders, the Corps, and the Commission. This process allows the public a greater voice in shaping federal management and policy on the river.

The Members of the Mississippi River Commission present during the second week of the two-week long inspection trip included:

- **Maj. Gen. Michael J. Walsh**, who assumed command as Commander, Mississippi Valley Division, and President Designee of the Mississippi River Commission on February 20, 2008
- **Hon. Sam E. Angel**, reappointed as a member on November 15, 1999
- **Hon. R. D. James**, civil engineer, reappointed as a member on April 16, 2003
- **Hon. William Clifford Smith**, civil engineer, appointed October 22, 1998
- **RADM Jonathan W. Bailey**, National Oceanic and Atmospheric Administration, designated as a member on October 6, 2007, and
- **Brig. Gen. John R. McMahon**, Commander, Northwestern Division, designated as a member on November 20, 2009

Maj. Gen. John W. Peabody was unable to attend. **Col. George T. Shepard**, served as the non-voting Secretary of the Commission.

The Commission was honored to have the **Honorable Jo Ellen Darcy**, Assistant Secretary of the Army for Civil Works, onboard for a portion of the trip.





Low-Water Inspection Trip Report

Sunday, August 15, 2010

383rd Session of the MRC

On Sunday, August 15, the Commission travel to the Southeast Missouri (SEMO) Port to discuss siltation problems at the harbor with port directors. Following the tour, Stephen Gambrell, Executive Director of the Mississippi River Commission, provided an overview of the strategic engagements, priorities, and objectives. Mark Mazzanti, Director of Programs, updated the Commission on the CEQ roadmap, the Louisiana Coastal Authority, and the BP oil spill cleanup. Charles Shadie, Chief of Watershed Management, followed with a briefing that detailed the actual versus normal precipitation amounts in the Mississippi Valley and a review of floods this past year on the Mississippi and Illinois rivers and flooding in Iowa and Missouri. Mr. Shadie also provided the Commission with a precipitation, drought, temperature, and hurricane outlook for the next three months. Edward Belk, the Technical Director of the Mississippi River Commission, updated the Commission on the levee evaluation process. Of the 14,000 miles of levees in the Corps of Engineers national database, approximately 40 percent (6,000 miles) are in the Mississippi Valley Division. Of that number, 3,525 miles of levees are MR&T project levees spread out over 33 levee systems.

Col. Vernon Reichling, the Memphis District Commander, provided a detailed briefing on the status, schedules, and issues pertaining to MR&T projects within his area of operations to include the Bayou Meto Basin, Grand Prairie Region, Reelfoot Lake, St. John's Bayou-New Madrid Floodway, and West Tennessee Tributaries. Col. Reichling also briefed the Commission on the status of American Recovery and Reinvestment Act projects and MR&T levee system evaluations for the national flood insurance program. Upon the request of the Commission, the Memphis District staff provided an impromptu status briefing on the St. John's Bayou-New Madrid Floodway project. Court-ordered site restoration at the project was delayed because of high-water, but work is expected to resume in a few days to complete the remaining 40 percent. The briefing included an update on the EIS process, additional scientific study, and model certification.

Col. Thomas O'Hara, the St. Louis District Commander, updated the Commission on general investigations, operations and maintenance, general construction, and American Reinvestment and Recovery Act projects in the St. Louis District. Following the briefing, the Commission attended a partnering engagement with 75 local interests represented by the Little River Drainage District, the St. Francis Levee District of Arkansas, St. John's Levee District, the Scott County and Cape Girardeau County commissions, SEMO Port, U.S. Representative Jo Ann Emerson (MO-8), and representatives from the offices of U.S. Senator Kit Bond (MO) and U.S. Senator Claire McCaskill (MO).



Low-Water Inspection Trip Report

Monday, August 16, 2010

383rd Session of the MRC

The Commission held a public meeting at Cape Girardeau, with more than 75 members of the public in attendance. U.S. Representative Jo Ann Emerson (MO-8), along with representatives from the offices of U.S. Senators Kit Bond (MO) and Roland Burris (IL), and U.S. Representative Todd Akin (MO-2), also attended. Congresswoman Emerson stated her position on the urgent need of the St. John's Bayou-New Madrid Floodway project and along with representatives from several local port authorities, testified on the need for the nation to recognize the value and importance of small ports and harbors to the local, regional, and national economies by providing appropriations for maintenance dredging at those facilities. The representative from Congressman Akin's office and several presenters from the Missouri counties of Lincoln, Pike, and St. Charles expressed their concerns with regard to their lack of consultation and input in the development of Plan H of the Upper Mississippi River Comprehensive Plan and articulated their opposition to Plan H without additional study and planning. Other issues and concerns brought before the Commission included dissatisfaction with the results of the ongoing levee certification process, support for implementation of Plan H, needed drainage improvements to eliminate flooding and erosion, assistance with needed levee rehabilitation, the West Tennessee and Tributaries project, and funding for the Navigation and Ecosystem Restoration Project.



Dennis Norris, Chief of Operations, briefed the Commission on the status of the MR&T channel improvement program and discussed possible courses of action in future articulated concrete mattress (ACM) sinking unit practices and activities. One course of action included the possibility of contracting out the entire revetment program to the private sector. The briefing focused on expenses in maintaining floating plant compared to actual and projected costs of operation. The program is projected to decrease to 120,000 squares annually necessitating associated reductions in plant and personnel. The Commission is considering a transition of the channel improvement program management from the Mississippi Valley Division office to a lead district as part of a regional interdependence plan.



Low-Water Inspection Trip Report

Tuesday, August 17, 2010

383rd Session of the MRC

The Commission held the 3rd meeting of the 383rd session at Memphis. More than 80 members of the public were in attendance, as was Jo Ellen Darcy, Assistant Secretary of the Army for Civil Works.

Once again, dissatisfaction with the levee certification process and the impacts of FEMA Shaded Zone X on local economies represented the dominant discussion topics by the presenters.

Other issues heard by the Commission included needed navigation and river improvements on the Ouachita and White rivers, the need for a 12-foot channel on the Arkansas River, aquifer depletion and the desire to see more Corps of Engineers involvement, dredging in ports and harbors, the East Arkansas Enterprise Community, and the Bayou Meto and Grand Prairie projects.





Wednesday, August 18, 2010

383rd Session of the MRC

Staff from the Louisiana Coastal Area Science and Technology Office updated the Commission on a number of items of interest to coastal Louisiana and Mississippi.

The Commission was informed that an executive order established the National Ocean Council to adopt recommendations of the Interagency Ocean Policy Task Force and to advocate use and development of coastal and marine spatial plans.

The staff and RADM Bailey also described the goals, internal workings, and organization of the CEQ Gulf Coast Ecosystem Working Group and the smaller individual teams comprising the group.

The briefing also discussed the objectives, field and model investigations, and lessons learned from the Old River Control Complex Sedimentation Study.

Last, the briefing covered ongoing studies and tentative conclusions with regard to the interaction of hurricane storm surges with marshlands and other natural coastal features.

Col. Edward Fleming, Commander of the New Orleans District, provided a detailed briefing on the status, schedules, and issues pertaining to MR&T projects within his area of operations.

Studies, investigations, projects covered by Col. Fleming included: Donaldsonville to the Gulf, Morganza to the Gulf, Houma Navigation Canal, Atchafalaya Basin Floodway System, Old River Control, Bayou Sorrel Lock, David Pond and Carnarvon freshwater diversion structures, and the Mississippi River levees.





Low-Water Inspection Trip Report

Thursday, August 19, 2010

383rd Session of the MRC

The Commission received a briefing on the Corps' water management response to the Deepwater Horizon oil spill. The briefing detailed river discharge rates from the beginning of the crisis through the present, the results of management techniques studies and placed into practice, and model results run by the Engineer Research and Development Center.

The state of Louisiana has operated the Caernarvon and Davis Pond diversion structures at maximum possible discharges in an attempt to limit oil intrusion and to protect marshes. Our federal

and state engineer research revealed the operation of the Old River Control Structures to provide additional flows would have a negligible impact as would the operation of the Bonnet Carré spillway and higher flows from the Missouri and Ohio Rivers.



The Commission also received a briefing on the Louisiana Coastal Area report to develop diversion projects on the Mississippi River. Of specific emphasis, the briefing discussed the Louisiana Coastal Area 6 Report, which is authorized under the WRDA 2007 bill pending a favorable report of the Chief of Engineers. The briefing focused on the minutia of potential modifications to the existing Caernarvon and Davis Pond diversion structures and proposed diversions at White Ditch and Convent Blind River.





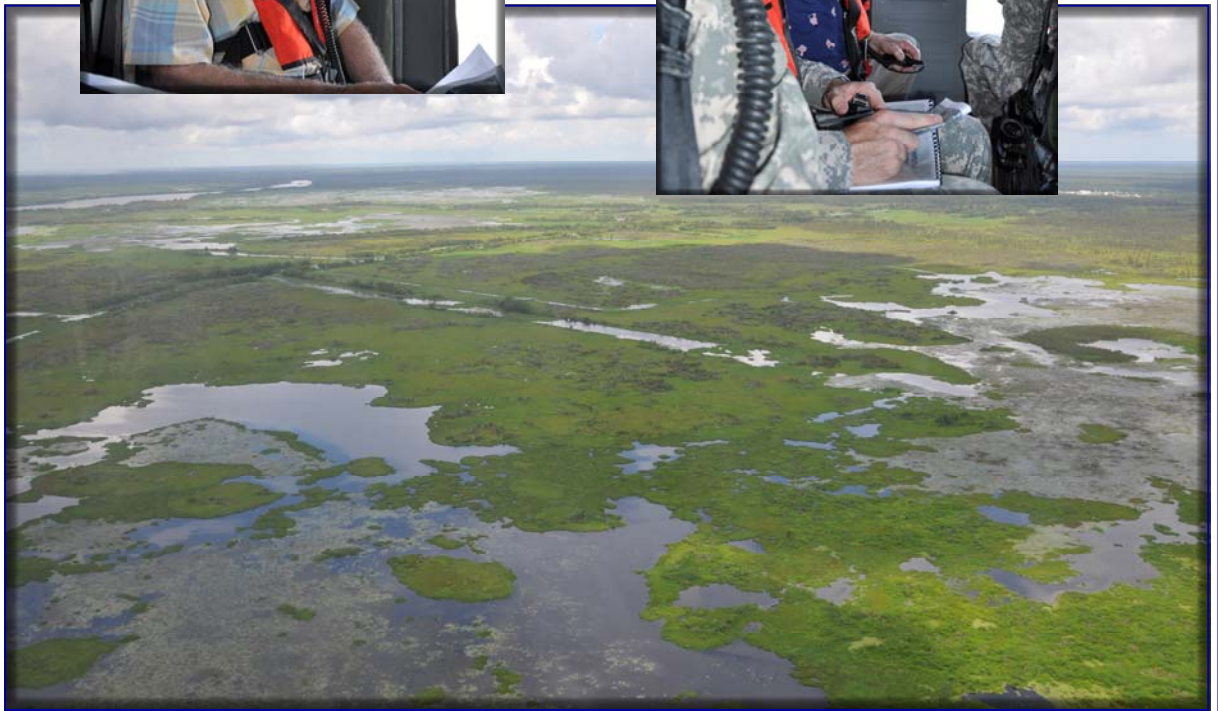
Low-Water Inspection Trip Report

Friday, August 20, 2010

383rd Session of the MRC

The Commission held the 4th and final public meeting of the 383rd session in Houma, La. More than 50 members of the public attended. Presenters at the public hearing discussed a broad array of topics that centered on coastal restoration, the need for diversions, support for the Morganza to the Gulf project, the need for the Houma Lock and deepening of the Houma Navigation canal, sediment and dredging problems, hurricane and flood protection.

Following the public meeting, the Commission participated in a Blackhawk helicopter flyover to view coastal Louisiana. The Commission boarded the helicopter and flew south and west to view deteriorating wetlands in the area. The helicopter continued across the Atchafalaya floodway and river and over the mouth of the Wax Lake Outlet to view active delta building in the region. The Commission then flew along the coast along Terrebonne Parish and then over the Houma Navigation Canal and the Morganza to the Gulf study area.





Diversions

The Commission was informed that it would hold an official session—the 384th session—in Vicksburg in November 2010 to consider the Louisiana Coastal Area 6 Report prior to sending to the Chief of Engineers. The Commission reaffirms that it has authority under section 14 of the 1899 Rivers and harbors Act, sections 8 and 9 of the 1928 Flood Control Act, and Division Regulation 415-2-3, to manage and approve any proposed alterations to the flood control features of the MR&T project.

While generally supportive of the use of diversions to restore marshlands in coastal Louisiana, the Commission believes that state or local oversight over the operation of diversion structures might prove to be a detriment to the Mississippi River system. The Commission recommends that further plans for the implementation and operation of diversion structures incorporate a systemic approach that falls under federal oversight. Likewise, the Commission recommends that it have operational control of the Mississippi River Hydro Model—an effort to provide reliable estimates of water and sediment that can be diverted for coastal restoration without comprising the existing navigation and flood control functions on the Mississippi River.





Gages

On July 21, the Honorable R.D. James, Member of the Mississippi River Commission, travelled to St. Louis, Mo., and attended a meeting held by the Tri-Agency Fusion Cell—a collaborative team of representatives from the National Weather Service, the U.S. Geological Survey, and the Corps of Engineers established to optimize the accuracy and utility of the rainfall and river forecasts provided to the public and governmental and non-governmental organizations. The Mississippi River Commission applauds and fully supports this critical effort.

The Commission recognizes that accurate and reliable river forecasts are the foundation of engineering and commercial activity in the Mississippi Valley. The Mississippi River Commission, the U.S. Army Corps of Engineers, local levee and drainage districts, the navigation industry, farmers, and local, state, and federal emergency management organizations all depend on accurate and reliable river forecasts year round, particularly more so during flood and low-water events. All efforts in these areas start with an understanding of and reaction to daily river forecasts. The Commission cannot stress enough that reliable and durable gages form the backbone of the data collection network and the forecasting system.

In its 14 August 2008 recommendation of the Upper Mississippi River Comprehensive Plan (UMRCP), the Commission advocated the placement of additional and more durable river gages on the Mississippi River and tributaries to better forecast events and to inform the public of potential flood risks and expansion of the “main stem” watershed analysis of the UMRCP to include the tributaries of the Mississippi River, in order to create a true basin-wide analysis. The Assistant Secretary of the Army for Civil Works, in separate letters to the Office of Management and Budget and the Senate Committee on Environment and public works, dated respectively on 31 October 2008 and 15 January 2009, supported these recommendations. Since that time, the damaged gages have been replaced and additional gages added.



The critical issue currently at hand is the protection and maintenance of the gages now in place and adequate funding to ensure the integrity of the forecasting system into the future. The data collection network in the Mississippi watershed is currently funded through the operations and maintenance appropriations of several different projects, leaving many gages vulnerable. In support of improving these efforts and in advocacy of the protection the lives, property, and the economic well-being of the Mississippi River watershed, the Commission recommends that the data collection network in the Mississippi watershed be managed and funded regionally as a system.



MISSISSIPPI RIVER COMMISSION

VICKSBURG, MISSISSIPPI

August 19, 2010

MISSISSIPPI RIVER COMMISSION
P.O. BOX 80
VICKSBURG, MISSISSIPPI 39181-0080

PRESIDENT and MEMBER

*Maj. Gen. Michael J. Walsh
*Commander, Mississippi
Valley Division*
Vicksburg, Mississippi

MEMBERS

*Honorable Sam E. Angel
Civilian
Lake Village, Arkansas

Honorable R. D. James
Civilian/Civil Engineer
New Madrid, Missouri

*Honorable Wm. Clifford Smith
Civilian/Civil Engineer
Houma, Louisiana

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* designee
** nominated

OPERATION OF THE DAVIS POND AND CAERNARVON FRESHWATER DIVERSION STRUCTURES IN THE AFTERMATH OF THE DEEPWATER HORIZON OIL SPILL

The Mississippi River Commission notes a strong concern with regard to the State of Louisiana's operation of the Davis Pond and Caernarvon freshwater diversions structures during the recent Deepwater Horizon oil spill crisis.

We are aware that the State of Louisiana has operated the structures outside the approved operating plans for the projects. This is potentially in conflict with the authorized objectives of the projects and possibly violates the requirements of National Environmental Policy Act. Operating outside the water control plans could detrimentally impact the ecosystem in these two areas. We are also aware that the New Orleans District has issued letters dated 27 July 2010 and 10 August 2010 advising the State of Louisiana of its noncompliance with the operating plans.

We are sensitive to the impacts of the oil spill crisis on the State of Louisiana, but the processes for operating and deviating from the approved operating plans have not been followed. Therefore, we expect that the State of Louisiana coordinate with the U.S. Army Corps of Engineers and operate the structures in accordance with the agreements and water control plans signed by the State on these projects.

Since 1879, the seven-member Presidentially appointed Mississippi River Commission has developed and matured plans for the general improvement of the Mississippi River from the Head of Passes to the Headwaters. The Mississippi River Commission brings critical engineering representation to the drainage basin, which impacts 41% of the United States and includes 1.25 million square miles, over 250 tributaries, 31 states, and 2 Canadian provinces.

Listening, Inspecting, Partnering and Engineering since 1879



MISSISSIPPI RIVER COMMISSION

VICKSBURG, MISSISSIPPI

August 19, 2010

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ST. JOHN'S BAYOU-NEW MADRID FLOODWAY PROJECT

Since its initiation in 1928, the Mississippi River and Tributaries (MR&T) project program has brought an unprecedented degree of flood protection to approximately 4 million people living in the 35,000 square-mile project area. The nation has contributed nearly \$13 billion toward the planning, construction, operation, and maintenance of the project. To date the nation has received a 27 to 1 return on that investment, including flood damages prevented. These astounding figures place the MR&T project among the most successful and cost-effective public works projects in the history of the United States.

Despite this overall success, key authorized features of the comprehensive flood control components of the MR&T project remain incomplete thereby preventing the realization of the full benefits of flood protection for certain areas in the Alluvial Valley. The St. John's Bayou-New Madrid Floodway project, authorized by the 1954 Flood Control Act and the WRDA 86, is one such vital component.

During public meetings spanning several sessions of the Mississippi River Commission, the project sponsors, local members of the public, and their elected representatives, including U.S. Representative Jo Ann Emerson, have demonstrated through passionate testimony the staunch determination to see this project become a reality. Based on the enthusiastic and unyielding support of the local people and sponsors for the project and the systemic value of this element for the larger MR&T project, the Commission recommends that the current effort by the Memphis District to produce the revised environmental impact statement for the St. John's Bayou-New Madrid Floodway Project be completed diligently with sound science and engineering.

PRESIDENT and MEMBER

*Maj. Gen. Michael J. Walsh
Commander, Mississippi Valley Division
Vicksburg, Mississippi

MEMBERS

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Lake Village, Arkansas

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New Madrid, Missouri

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* designee

** nominated

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November 17, 2010

384th Session of the MRC

The Mississippi Commission held its 384th Session on November 17, 2010 at the Office of the President in Vicksburg, Miss. The Commission held the public meeting to receive a briefing on the 2010 refined flow line on the Atchafalaya River and to review and consider six Louisiana Coastal Area ecosystem restoration projects authorized by Section 7006(e)(3) of the Water Resources and Development Act of 2007. The members of the Commission present included:

- **Maj. Gen. Michael J. Walsh**, Commander, Mississippi Valley Division and President Designee of the Mississippi River Commission
- **Hon. Sam E. Angel**, reappointed as a member on November 15, 1999
- **Hon. R.D. James**, civil engineer, reappointed as a member on April 16, 2003
- **Hon. William Clifford Smith**, civil engineer, appointed as a member on October 22, 1998
- **Brig. Gen. John R. McMahon**, Commander, Northwestern Division, designated as a member on November 20, 2009

Rear Adm. Jonathan W. Bailey and **Maj. Gen. John W. Peabody** were unable to attend. **COL George T. Shepard** served as the non-voting Secretary of the Commission. The Hon. Mr. Smith recused himself from discussion and voting because of a possible conflict of interest.



The six near-term projects considered by the Commission included: Convey Atchafalaya River Water to Northern Terrebonne Marshes and Multipurpose; Operation of the Houma Navigation Lock; Small Diversion at Convent/Blind River;



Public Meeting Report

Amite River Diversion Canal Modification; Terrebonne Basin Barrier Shoreline Restoration; and Medium Diversion at White Ditch.

The Commission's review encompassed the overall technical, economic, social, environmental, and policy aspects involved in the formulation of alternative plans of improvement in findings, conclusions, and recommendations of the District Engineer. The Commission considered the results of the Washington-level review and conformance of the recommended plan with the essential elements of the Water Resources Council's Economic and Environmental Principles and Guidelines for Water Resources Implementation Studies and compliance with other applicable administrative and legislative policies and guidelines. The Commission also considered the views of interested parties, including Federal, State, and local agencies and the public during high- and low-water inspections.



The Commission endorsed the implementation of the District Engineer's recommendations for plans to achieve ecosystem restoration objectives with certain caveats:

- Completion and/or integration of several ongoing studies focusing on sediment distribution and transport, geomorphology, and hydrology of the Lower Mississippi River.
- Completion of a comprehensive system-wide analysis to identify the cumulative effects of multiple diversions and their potential impacts to the Mississippi River, the Atchafalaya River, and the authorized 70-30 flow distribution at the Old River Control Structure.
- Reconciliation of future diversions with existing MR&T authorizations.





MISSISSIPPI RIVER COMMISSION

VICKSBURG, MISSISSIPPI

November 17, 2010

MISSISSIPPI RIVER COMMISSION
P.O. BOX 80
VICKSBURG, MISSISSIPPI 39181-0080

Mississippi River Commission Recommendation

PRESIDENT and MEMBER

*Maj. Gen. Michael J. Walsh
Commander, Mississippi
Valley Division
Vicksburg, Mississippi

Louisiana Coastal Area, Louisiana, Ecosystem Restoration, Six Projects Authorized by Section 7006(e) (3) of Water Resources Development Act of 2007

MEMBERS

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Lake Village, Arkansas

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Listening, Inspecting, Partnering and Engineering since 1879

In building support for the six near-term projects for coastal restoration for the Louisiana Coastal Area, the Mississippi River Commission endorses the implementation of the District Engineer's recommendations to achieve ecosystem restoration objectives with specific caveats. While the Commission acknowledges the historical deltaic processes involving the transport of enormous volumes of sediment and water and the influence the Mississippi and Atchafalaya Rivers have on land building in Coastal Louisiana, we believe the implementation of proposed diversions on the Mississippi River should be founded in a comprehensive and systematic manner that will work in harmony with the existing flood control, navigation, and environmental sustainability components, particularly those components of the Mississippi River and Tributaries (MR&T) project.

The MR&T project is a comprehensive project on the lower Mississippi River below Cape Girardeau, Missouri. The project was authorized as a result of the 1927 flood of the 35,000 square-mile alluvial valley, which overwhelmed the levee system and caused extensive flooding of populated areas. The four major elements of the MR&T Project are: 1) levees for containing flood flows; 2) floodways for the passage of excess flows past critical reaches of the Mississippi River; 3) channel improvement and stabilization to provide an efficient navigation alignment, increase the flood carrying capacity of the river, and protect the integrity of the levee system; and 4) tributary basin improvements for major drainage and for flood control. The MR&T system controls and confines the river system before it reaches the coastal area, while providing substantial flood protection for nearly 4 million people and providing a reliable channel for more than 500 million tons of waterborne commerce annually.

The debate with regard to the benefits and impacts of diversions on the Mississippi River dates back to the early days of hydraulic river engineering in this country. The Commission believes that even with the refinement of scientific and engineering tools available today, a significant knowledge deficit exists that prevents scientists and engineers from understanding necessary details about the impacts associated with the multiple proposed diversions on the lower Mississippi River. While we are unopposed to diversions, we remain cautious. Several studies focusing on sediment distribution and transport, geomorphology, and hydrology of the lower Mississippi River have been initiated but have not yet been completed or integrated. Before construction proceeds with the projects that are integral to or dependent upon the Mississippi River endorsed by this Commission, we maintain that a comprehensive system wide analysis that identifies the cumulative effects of multiple diversions is warranted to adequately and scientifically assess the potential impacts to the lower Mississippi River, the Atchafalaya River, and to the authorized MR&T flood control and navigation features, to include the Old River Control Structure and the authorized 70-30 flow distribution. Plans for future diversions must be reconciled with existing MR&T authorizations to ensure a sustainable, effective, and holistic solution. The Mississippi

River Commission has legislative authority and proven experience to provide leadership to objectively and fairly consider impacts along the entire lengths of the Mississippi and Atchafalaya Rivers. The Commission further recommends the establishment of stringent site-specific parameters and procedures for operating and maintaining any and all diversion projects along the Mississippi and Atchafalaya Rivers, and in the event that the operating standards are not met, include provisions for project shutdown until compliance resumes.

This Commission endorses the concepts for restoration strategies of the Louisiana Coastal Area project that reintroduce historic flows of river water, nutrients, and sediment to coastal wetlands and that maintain the structural integrity of the coastal ecosystem to help reverse the current trend of degradation. At the same time, we are compelled to reiterate that the execution of such plans must employ a systematic and holistic focus. The Mississippi River Commission believes that large scale ecosystem restoration for coastal Louisiana may be achievable while balancing the influences on existing infrastructure, including navigation, hurricane protection, flood control, land transportation works, agricultural lands, oil and gas production, and distribution facilities to support and protect the environment, economy, and culture of southern Louisiana and thus, contribute to the economy and well-being of the Nation.

America's Watershed: A 200-year vision

An Intergenerational Commitment

Our people ...

- **Enjoy a quality of life unmatched in the world.**
- **Lead secure lives along the river or tributary.**
- **Enjoy fresh air and the surrounding fauna, flora, and forests while hunting, fishing, and recreating.**
- **Travel easily, safely, and affordably.**
- **Drink from and use the abundant waters of any river, stream, or aquifer.**
- **Choose from an abundance of affordable basic goods and essential supplies that are grown, manufactured, and transported along the river to local and world markets.**

- ❖ **National Security & Comprehensive Flood Control**
- ❖ **Environmental sustainability & recreation**
- ❖ **Infrastructure & energy**
- ❖ **Water supply & water quality**
- ❖ **Movement of goods; agriculture & manufacturing**

Leveraging science, engineering, technology and public policy

Mississippi River Commission

We Value....

Listening - Access

... providing an equal opportunity for all citizens to share their insight and wisdom in a free and open forum – a forum that offers greater access for citizens to actively engage in and shape Federal water resource management policy.



Inspecting - Professionalism

... setting the highest professional, engineering, and process standards that are emulated nationally and internationally, and offer an intergenerational vision for the world's 3rd largest watershed.



Partnering – Relationships

... establishing and nurturing long-term collaborative relationships with diverse interests, elected representatives, State and Federal agencies, and the Corps of Engineers to develop sustainable solutions for current and future watershed challenges.



Engineering - Action

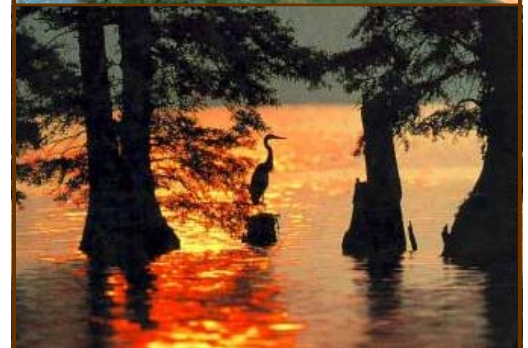
... protecting lives, property, economic prosperity, and the nation's natural resources by advancing balanced and sound water resource engineering solutions reached through collaboration and long-term relationships.



Mississippi River Commission

Priorities....

- **Navigation – available and improving delivery**
 - » Consider, discuss, and address container on barge for 2014-15 with opening of the Panama Canal new set of locks
 - » Dredging of small ports and harbors
 - » Navigation and Ecosystem Sustainability Program (NESP)
- **Infrastructure**
 - » Use MRC process of listening, inspecting, partnering, and engineering to increase awareness of the deteriorating infrastructure in the watershed
 - » Through established relationships, develop plans to address infrastructure in the watershed; lead federal efforts
 - » Use MRC process to increase and improve infrastructure investment
- **Comprehensive Flood Control**
 - » MR&T (Mississippi River Levees, Morganza to Gulf)
 - » Upper Miss Comprehensive Plan
 - » Communicate MRC/MR&T process as a comprehensive balanced watershed approach to follow in the six major sub-basins comprising the world's 3rd largest watershed – the Mississippi, Missouri, Ohio, Red, Arkansas, Illinois River basins and tributaries.
- **Environmental Sustainability**
 - » Integrate science based, sustainable, and resilient work into all projects (life-cycle costs)
 - » LCA: Explore innovative approaches and solutions such as water and sediment diversions
- **Water Supply**
 - » Prolonged drought concerns/storage of runoff
 - » Multi-state aquifer depletion
- **200-year Working Vision for America's Watershed**
 - » MRC signed a working vision August 20, 2009 (revised August 2010). It serves as:
 - * A system-wide balanced approach, requires an intergenerational commitment, and compliments a national vision
 - * A platform for broad participation, international recognition, and a long-term balanced vision for the entire watershed.



Mississippi River & Tributaries Project

The Mississippi River and Tributaries project was authorized by the 1928 Flood Control Act. In the wake of the 1927 flood, it was deemed necessary to put into place a comprehensive, unified system of public works within the lower Mississippi Valley that would provide unprecedented protection from floods and an equally efficient navigation channel.

The MR&T project has four major features:

1. Levees/floodwalls
2. Floodways
3. Channel improvement and stabilization
4. Tributary basin improvements

These features work together to provide flood protection and navigation, and foster environmental protection and enhancement.

PROJECT BENEFITS

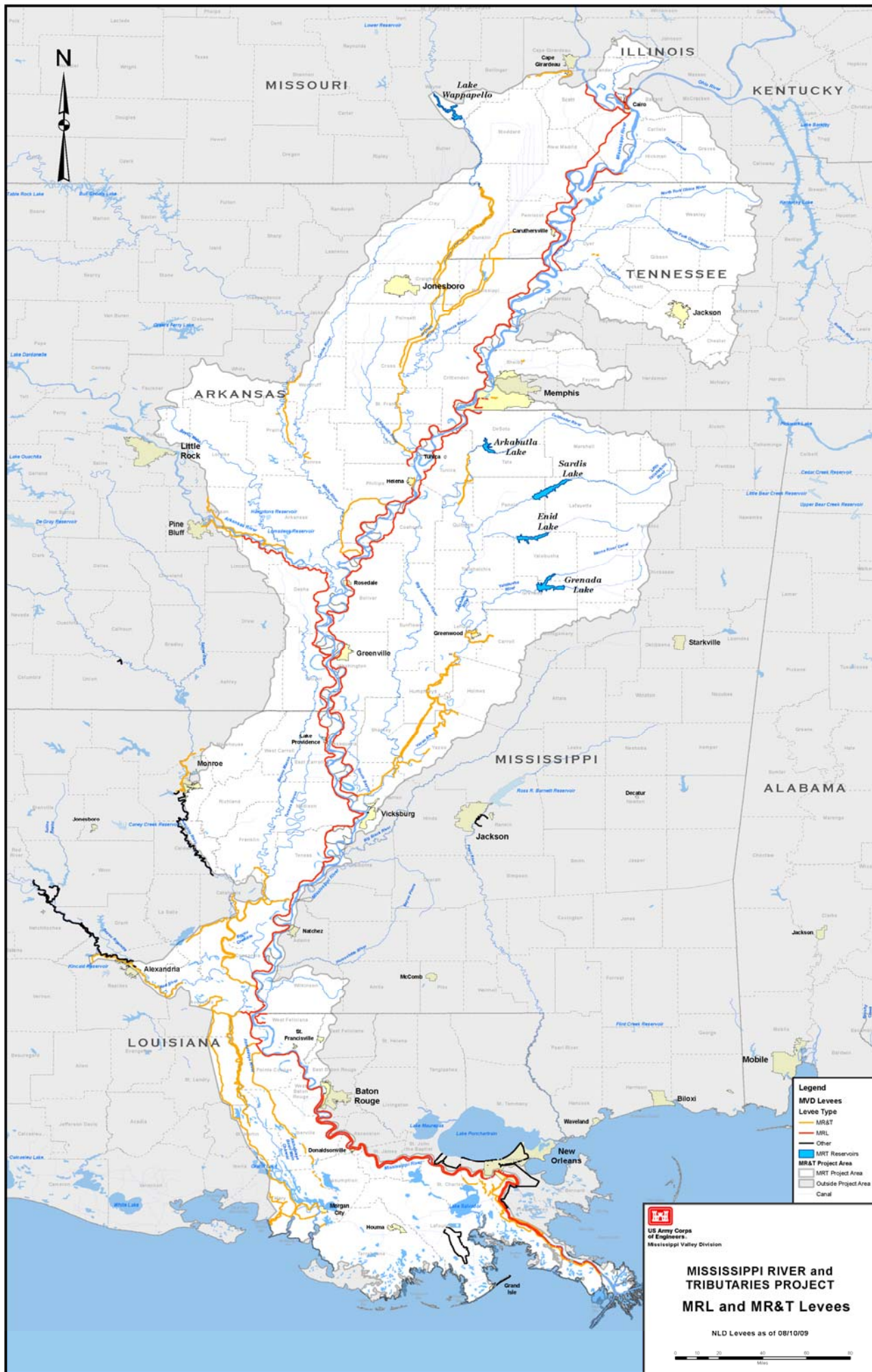
Flood Control

- \$13.3 billion invested for planning, construction, operation and maintenance since 1928
- \$360.4 billion in flood damages prevented, since 1928
- Approximately 4 million people protected
- 27 to 1 return on each dollar invested
- 88% physically complete
- \$3.2 billion construction balance to complete

Navigation

- More than 500 million tons of cargo move on the Mississippi River system each year.
- \$2.9 billion saved annually in transportation benefits.
- The Mississippi River remained opened during 1988 and 1999 droughts. The ability to keep the river open offered unequivocal evidence of the benefit of the MR&T project to the nation. Keeping it open and reliable is a pillar of economic stability and national security.





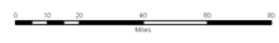
Legend

- MVD Levees
- Levee Type
- MR&T
- MRL
- Other
- MRT Reservoirs
- MR&T Project Area
- MRT Project Area
- Outside Project Area
- Canal

US Army Corps of Engineers
Mississippi Valley Division

MISSISSIPPI RIVER and TRIBUTARIES PROJECT
MRL and MR&T Levees

NLD Levees as of 08/10/09



World's 3rd Largest Watershed
Drainage basin for 41% of the United States

