Interagency Recovery Task Force

Together…restoring the third largest watershed in the world!

Volume I, Issue 2 **September 26, 2011**

How it began:

- Monumental Flooding in the Mississippi River Valley Watershed
- Activation Memo from HQ Signed May 13 , 2011 to establish the Interagency Recovery Task Force (IRTF)
- Invitation letters to join the IRTF signed by MG Walsh and sent May 20, 2011.
- Meetings: Teleconference, 27 May Memphis, TN, June 22 Pearl, MS, 23 Aug
- Next meeting, 20 Oct New Orleans, LA

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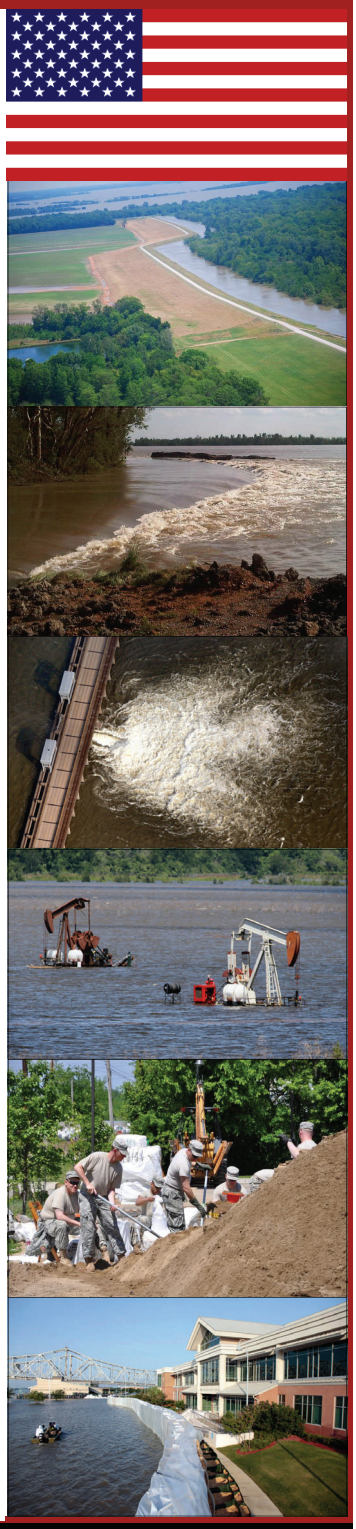
Mississippi IRTF Meeting, 23 August

The 3rd Interagency Recovery Task Force meeting was held 23 August in Pearl, Mississippi. Our gracious host was the MS Emergency Management Agency, lead by Director, Mr. Mike Womack and staff. In attendance were 4 states (MO, IL, MS, LA) and 8 agencies (NWS, FEMA, USDA, USGS, USCG, MARAD. USFWS, CUSEC).

Topics discussed were critical to our collaborative efforts and transparent communication. The meeting started off with a historical perspective, scope, and nature of the MR&T "system." The key takeaway points being the MR&T is: 1.) one of the largest, most comprehensive and successful flood risk management systems in the world, 2.) comprised of levees, channel stabilization, tributary improvements, and floodways, and 3.) with $13.9 billion invested, $478.3 billion in flood damages prevented and 4.5 million people protected. Next, updates were provided on the key elements of Operation Watershed Recovery: Damage Assessments and Prioritization, System Performance Evaluation. IRTF members received a spreadsheet and corresponding maps of critical interim repair priorities for 3 Districts. The process on how those items were ranked was also discussed. Dave Busse, Technical Lead for the System Performance Team, gave an update with a draft schedule and deliverables. Also discussions were made on incorporating the IRTF with other significant groups, such as fusion teams, and state flood risk management teams (Silver/Camo jackets).

The afternoon's presentation from Mike Womack, gave the team insight into MEMA's Catastrophic Levee Breach Plan and scenarios used during flood events. He also briefed on the meeting he attended with the Central U.S. Earthquake Consortium (CUSEC) and how plans are being formulated should a historic flood event coincide with an earthquake.

The next face-to-face meeting will be hosted by the State of Louisiana, representative Jerome Zeringue, in New Orleans, LA, on 20 October 2011. Key topics will be critical repairs, funding levels in the new fiscal year, completion of Damage Assessments and prioritized repairs, System Performance Evaluation update, USGS flood report update, and Fusion Team updates. Due-outs by the next meeting include: inundation models and links to websites, updates on the Corps external national perspective, inclusion of team for Phase II prioritization, and shared access to documents (MVD is in the process of updating websites for such purpose).



Scott Whitney presenting on the MR&T Project

Updates from the USGS

Courtesy of Bob Hainly and Bob Holmes, USGS

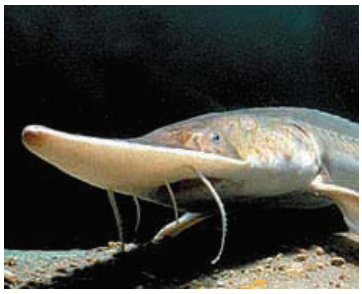
During the flooding in the Mississippi River basin, the USGS collected a large amount of data, both in support of our Corps of Engineers and National Weather Service partners as well as for USGS scientific studies. USGS is currently laying out a series of reports that document the flooding as well as provide scientific insight into the impacts of flooding. Studies such as the impact of the 2011 floods on geomorphic change to selected reaches of the Missouri River, the hydrodynamics present during the operation of the Birds Point-New Madrid floodway, and the water quality of Lake Ponchartrain during the 2011 flood will be conducted. USGS is also collaborating with Corps of Engineers to investigate the main channel Mississippi River hydraulic transients detected during the operation of the Morganza Floodway and Old River Control Structure. Selected flood inundation mapping is nearing completion in areas around Shelby County Tennessee and parts of Kentucky in cooperation with the Federal Emergency Management Agency. Lastly, USGS is conducting an introspective after-action review of its performance during the 2011 flooding within the entire Mississippi River Basin. A multi-disciplinary USGS-staffed review team has been formed and has begun their data-gathering process. The team will look at technical activities, as well as, programmatic and communication issues. They intend to deliver their draft report for USGS review by October 31. The USGS plans to share findings with the USACE and the NWS to allow an interagency full-system evaluation of response to the 2011 floods.

IRTF Meeting at MEMA HQ, Pearl, MS

New Orleans Endangered Wildlife Response Efforts

Courtesy of Thomas Parker: Thomas.W.Parker@usace.army.mil

Once it was discovered that the Bonnet Carré Spillway and the Morganza Floodway would need to be operated to reduce the potential for loss of life and property, from floodwaters on the lower Mississippi River, coordination with other agencies began. The US Army Corps of Engineers (USACE), Mississippi Valley Division (MVD), New Orleans District (MVN), requested the initiation of emergency consultation, under section 7 of the Endangered Species Act (ESA) of 1973, as amended for the Federally listed endangered pallid sturgeon (*Scaphirhynchus albus*), the threatened Louisiana black bear (*Ursus americanus luteolus*), and the threatened under the similarity of appearance provision, shovelnose sturgeon (*Scaphirhynchus platorynchus*).



In 2008 operation of the Bonnet Carré Spillway, it was determined that diversions can entrain sturgeon from the river. To reduce impacts to the pallid and shovelnose sturgeon from entrainment; MVN tasked the Engineering Research and Development Center (ERDC) with conducting a rescue effort in the outfall of the Bonnet Carré Spillway and the Morganza Floodway. After over six weeks of sampling, ERDC was able to rescue 9 pallid sturgeon and 31 shovelnose sturgeon from the outfall of the Bonnet Carré Spillway and return them to the Mississippi River. ERDC also sampled in the forebay and tailbay of the Morganza spillway and were unable to find any sturgeon.

District maps with critical interim repairs.

(Continued on page 3)

This is thought to be due to the long distance between the Morganza structure and the Mississippi River.

The New Orleans District also wanted to reduce impacts to the Louisiana black bear. The District distributed bear sighting forms to all of its personnel working within the Atchafalaya Basin Floodway System (ABFS), so that bears relocated in the basin could be documented. MVN also contracted the Louisiana Department of Wildlife and Fisheries (LDWF) to perform flyovers of the ABFS to document the location of black bears within the basin. This data is still being compiled.

Corps Monitoring Water Quality Following Flood 2011

Courtesy of Danny Wiegand: Danny.L.Wiegand@usace.army.mil

The U.S. Army Corps of Engineers, in close collaboration with approximately 10-15 federal and state partners and non-governmental organizations, continues to assess the water quality of the Mississippi and Atchafalaya Rivers, Lake Pontchartrain Basin and Mississippi Sound in response to the 2011 opening of the Bonnet Carre' Spillway and the Morganza Floodway. The Corps has conducted weekly conference calls since early May and continues to exchange information and field experiences with the collaborating organizations.

Bonnet Carre' Spillway

The Bonnet Carre' Spillway is designed to ensure that a maximum river flow of 1.25 million cubic feet per second (cfs) is passed through the Mississippi River and Tributaries system at New Orleans. The Spillway allows water from the Mississippi River to flow into Lake Pontchartrain.

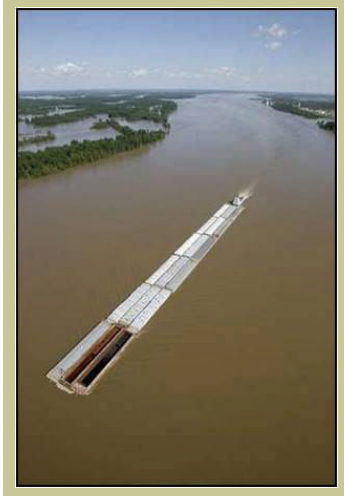
The diversion of freshwater into Lake Pontchartrain and adjacent waters temporarily alters water quality in the estuary. To better understand and evaluate these changes, the Corps has an agreement in place with the United States Geological Survey (USGS) to collect water quality data. Conditions measured include typical field parameters (e.g. dissolved oxygen, salinity, pH, etc.), nutrients, total suspended solids, chlorophylls, phytoplankton, and herbicides. USGS and Louisiana State University are also collecting samples to assess potential algal blooms in Lake Pontchartrain including blue-green algae, which can be harmful to people and animals.

Morganza Floodway

Intended to operate during emergency flood events, the purpose of the Morganza Floodway is to divert floodwater from the Mississippi River into the Atchafalaya Basin to limit the flow in the Mississippi River below Morganza to 1.5 million cubic feet per second (cfs). In response to opening the Morganza Floodway, the Corps funded USGS to collect additional water quality samples at four of their routine monitoring stations in the Mississippi and Atchafalaya Rivers as well as a temporary station at the I-10 bridge to evaluate effects in the Atchafalaya Basin. Parameters measured included major inorganic analytes, dissolved organic carbon, alkalinity, nutrients, pesticides, suspended sediment, and parameters associated with potential oil and gas leaks. To access the monitoring map developed in response to opening the Bonnet Carre' Spillway and Morganza Floodway, the Corps and USGS created a website available at:

http://deltas.usgs.gov/spillway/BonnetCarre2011.aspx

The website allows users to spatially view data collected and provided by multiple organizations from monitoring stations across southern Louisiana. The Corps continues to coordinate closely with the participating agencies and organizations to monitor water quality effects and identify areas of collaboration between organizations to maximize spatial and temporal coverage of monitoring activities.



Damage Assessments

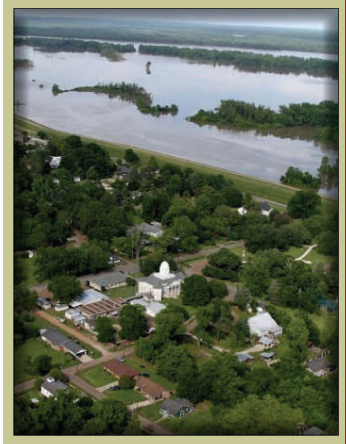
The preliminary findings reports, areas deemed most critical by the Districts, were submitted to an oversight team for review and decision. The oversight team prioritized items in August, based on HQ guidance to provide interim repairs to protect life and ensure safety prior to the next flood season. All items were given a Class I-IV ranking based on risk and consequences. A priority list was created with 93 MR&T issues. Class I rankings are highest priority because they pose the highest potential for loss of life and critical repairs. There are 12 Class I items. Class II items are those with significant potential for loss of life and economic damage, and there are 43 items on the list. Class III is defined by high impact to navigation or indirect potential for loss of life or critical repairs, and there are 37 items. Class IV items are other risk and impact reduction measures. Right now there is only one Class IV, however final reports will be in soon.

Phase II prioritization will begin in early October, as the final Damage Assessment Reports (DAR) are submitted on 30 September. These DARs have had both District Quality Assurance Reviews as well as Regional Reviews. Any additional recovery items will undergo the same process as in Phase I and be added to the initial priority list, into a comprehensive list, with Class I & II still being top priorities.

"Speed to Momentum"

System Performance Evaluations

The System Performance Evaluation Teams will evaluate and document the performance of the MR&T System and management of the entire watershed during the 2011 flood. A Project Management Plan (PMP) was completed 16 September which further defines and clarifies the scope, schedule, and budget for the team. A regional management team has been developed to further define and establish a path forward, and help effectively manage the Evaluation. This team will directly assist the 14 Project Delivery Teams (PDTs) and jointly perform regional management duties to ensure good communication and clarity of the scope and interrelated efforts. The management team will meet in Memphis, 28-29 Sep.



Post flood data collection is key to the team's success. One of the ways to gain information is by interviews. Data inventory interviews were conducted at each District and were completed in August. The communications PDT has completed summaries of the agency meetings and are preparing for the Cape Girardeau meeting on September 27. They are conducting in-depth interviews with Public Affairs personnel throughout the district. Phone interviews are also being conducted with people identified at the agency meetings to collect additional information on communication during the 2011 flood event. A meeting for Non-Governmental Organizations (NGO) will be conducted in Memphis early November. An NGO list has been compiled and is being further refined. The economics PDT has made contact made with US Coast Guard and deep-draft pilots associations to collect list of both deep-draft and shallow draft operating restrictions due to high water/high flow conditions. The team developed a draft set of industry survey questions. Both of these tasks are part of the larger activity of navigation impact assessment.

All internal teams, along with external expertise, historical and post flood data, and state-of-the-art forecasting and modeling will help to determine true system performance, expose vulnerabilities, and assist in future flood risk management.

Construction News!

During activation of the Birds Point - New Madrid Floodway, three artificial crevasses in the levee were opened to allow floodwater to flow through the Floodway, reducing water elevations and pressure on the flood control system. Currently, repairs to the levee at the three crevasse locations, to provide interim protection to a flood elevation of 51 feet on the gage at Cairo, Ill. (39 feet on the gage at New Madrid), are on going. Despite unforeseeable delays; heavy rains, cultural resource finds, and nesting endangered species, tremendous progress has been made. The lower and upper crevasses have the largest crews and already are at 74% and 55% complete, respectively. Crews with heavy equipment fill scour holes with sand. The holes are then capped with clay to provide the levee a stable base and resist seepage. Project completion to a flood elevation of 51 feet on the gage at Cairo, Ill. is scheduled for 30 November 2011.

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