

2011-2012

Interagency Recovery Task Force: Annual Report



Mississippi Valley Division

USACE

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Interagency Recovery Task Force ANNUAL REPORT 2011-2012

EXECUTIVE SUMMARY

In the midst of one of the most historic floods in the modern history of the Mississippi River, the Corps' Mississippi Valley Division was charged to assemble key Federal and state agencies in the form of an Interagency Recovery Task Force (IRTF). The primary intent of this task force was to focus regional managers, leaders and decision maker's attention, priorities and resources on the challenging flood recovery. This task force met regularly for more than a year to identify and successfully address numerous flood recovery challenges and issues. An Annual Report was developed to provide a synopsis of the IRTF's activities, accomplishments and lessons learned. The Report reviews IRTF efforts in context of established purpose, mission, goals and objectives. Brief summations of the series of eight IRTF meetings convened provide understanding of the range of topics and issues embraced by this group. Products directly or indirectly influenced by the IRTF are detailed in this document as well. This Report concludes with sections on lessons learned and next steps that describe the value-added nature of interagency collaboration and its importance for continued improvement and implementation of a successful and shared responsibility for FRM.

The IRTF was conducted under the direct leadership of MVD Commanders MG Michael Walsh from May to October 2011 and MG John Peabody from October 2011 to present. This forum was designed and implemented in an integrated, collaborative, and holistic fashion to facilitate the recovery and rehabilitation of flood risk management (FRM), navigation and floodplain management systems damaged by the historic Mississippi River Basin flooding of 2011. Members united in common purpose to leverage State/Federal resources and communication networks to ensure the continued safety and protection of lives and livelihoods of affected U.S. citizens, communities and industry. Charter members included regional and state-level representatives from Missouri, Illinois, Tennessee, Kentucky, Arkansas, Mississippi and Louisiana. Coordinating agencies include the Federal Emergency Management Agency (FEMA); National Weather Service (NWS); U.S. Department of Agriculture (USDA); U.S. Environmental Protection Agency (USEPA); U.S. Geological Survey (USGS); U.S. Coast Guard (USCG); U.S. Fish & Wildlife Service (USFWS); Maritime Administration (MARAD); and the US Army Corps of Engineers (Corps) Major Subordinate Commands. Those Corps commands are the Mississippi Valley Division (MVD); Great Lakes and Ohio River Division (LRD); Northwestern Division; and support from the Southwest and South Atlantic Divisions.

The efforts by the IRTF in 2011-2012 have served to improve working relationships, increase flood risk understanding and implement critical flood repairs and preparedness actions. Group discussion covered a broad and challenging array of tactical and strategic Flood Risk/Recovery responsibilities and challenges. Member agencies leveraged authorities, experience and resources to put the region on an aggressive and attainable path to recovery; increased flood risk awareness; and made recommendations for future flood preparedness. The regularity and focus of IRTF meetings and interactions were appropriately paced with the tempo and challenges of the recovery process. With the late December 2011 passage of and supplemental appropriations provided by the Disaster Relief Appropriations Act, the Corps is well positioned to repair and restore the majority of damaged levees, structures and navigation channels over next 2 years. With construction repairs in full swing and a below average 2012 spring flood season, the IRTF is downshifting to a long-term sustainment mode that will seek to maintain periodic interaction to ensure recovery is progressing smoothly and the working relationship among State/Federal agencies is maintained through the full life cycle of regional FRM.

**Interagency Recovery Task Force
ANNUAL REPORT
2011-2012**

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I. INTRODUCTION

Throughout the history of human civilization, numerous epic natural disasters have caused widespread destruction and loss of life. The Mississippi River and Tributaries (MR&T) flood risk management (FRM) system was born from one of these disasters, the Great Mississippi River Flood of 1927. In 1927, the Mississippi River broke out of its levee system in 145 places and flooded 26,000 square miles (photograph 1). The Flood affected parts of Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, Tennessee, Texas, Oklahoma and Kansas. By May 1927, the Mississippi River below Memphis, TN reached a width of 80 miles. Many areas were inundated up to a depth of 30 feet. The flood caused over \$1 billion in damages and killed some 500 people in seven states. The MR&T project was designed to function as a system of levees, floodwalls, floodways, and reservoirs that function as a comprehensive flood control system to prevent similar devastation and loss of life should such an epic event ever reoccur. Such a flood event occurred on the Mississippi River, the 3rd largest watershed in the world, from May through June 2011, setting new gage records at most locations from Cape Girardeau, MO to the Gulf of Mexico.



Photograph 1. Epic Natural Disaster
The Great Flood of 1927 flooded 26,000 sq. miles (72% of lower valley),
600,000 homeless, over 500 people killed and economic damages ~\$1B

On May 1, 2011, while flood waters were rising, MG Michael Walsh directed the activation of Operation Watershed-Recovery (OW-R) which looked not only at current and near-future planning and execution during the flood event, but also made necessary preparations for expected repair and recovery throughout the watershed. MG Walsh sought authority from the US Army Corps of Engineers (Corps) Headquarters (HQ) to establish an Interagency Recovery Task Force (IRTF) similar to the one he created following the historic and damaging flooding in the Upper Mississippi River in 2008. An activation guidance memorandum was received on May 13, 2011, instructing MG Walsh to establish an IRTF to ensure common purpose and drive effective collaboration across agencies and organizations during recovery from the Mississippi River Basin flood event of 2011. The IRTF has remained engaged through all aspects of OW-R, including damage assessments, regional prioritizations, system performance evaluation, 2012 regional flood preparedness, and initiation of interim and permanent repairs. All members of the IRTF were engaged in the timely repair of damaged infrastructure and the restoration of services essential for safety, protection, quality of life, and economic prosperity for those citizens affected by the Flood.

A. Purpose. By collaborating and combining solutions for short and long-term restoration efforts, the IRTF intended to create an integrated and holistic method of rehabilitating the Corps' FRM systems damaged by recent flood events. The Task Force was established with lead Federal agencies and state-appointed members involved in the assessment, documentation, and repair of FRM, flood plain management and watershed management systems.

B. Mission Statement. Through an intergovernmental team of state and Federal agencies, a collaborative process will:

- create a multi-agency forum to solve the many regional issues and challenges that will be presented in the recovery from this historic flood event;
- provide safety and security for citizens lives and livelihoods;
- create strong regional effort to inspect, review, reset and restore our FRMS;
- pursue all potential funding methods from Federal and state sources;
- give consideration to traditional and non-traditional alternatives in repair and restoration;
- implement a collaborative and communicative approach across regional and state boundaries to prioritize our efforts and resources during the challenging recovery process;
- facilitate strategic, integrated life-cycle mitigation actions to reduce the threat, vulnerability and consequences of flooding in the Mississippi River Valley;
- create or supplement a mechanism to collaboratively solve issues and implement or recommend solutions; and
- increase and improve flood risk communication and outreach.

C. Goals and Objectives

- Implement a consistent approach across region and state boundaries in order to prioritize agencies, authorities, and resources in the rehabilitation process
- Create a strong team to inspect, review, repair and restore our FRMS and adjacent project.
- Create an IRTF management plan
- Share responsibility for all flood plain management restoration initiatives, programs, and projects in order to reduce flood risks long term
- Supply an effective outreach program to communicate short and long term to the public, as well as, educate on the agencies' responsibilities, programs and authorities
- Pursue all potential funding methods from Federal and state resources
- Ensure continuous pre- and post-disaster collaboration
- Give consideration to all structural and non-structural alternatives in repair and restoration
- Learn about programs, identifying limitations and opportunities, and combine programs to create integrated, comprehensive and sustainable solutions
- Create a multi-agency technical resource for state and local agencies
- Improve flood risk outreach by presenting a unified interagency message to better educate and advise mutual customers as a result of gaining familiarity with each agency's missions, processes and programs
- Improve internal and external risk communication, including increased awareness of residual risk

- Identify and facilitate improvements to existing programs, policies and processes
- Identify other collaboration opportunities to combine resources and identify gaps; minimize duplication of effort and ensure consistency
- Catalog and share information on past and future projects and initiatives
- Prioritize current and future initiatives individually and collectively

D. Management Plan. The IRTF Management Plan (IRTFMP) was developed to cover the scope of the short-term efforts required for recovery from the Mississippi River Basin Flood Event. The operational boundary and the duration of the IRTF were further defined by the Commander, Mississippi Valley Division (MVD) in his request to activate the IRTF. This IRTFMP will remain in effect for the duration of the Task Force, as agreed to by its member agencies. This plan was not intended to usurp any authorities and programs currently assigned to its member states and agencies, nor deny any applying party access to existing programs for repairs and associated restoration and/or other impediments.

E. Charter. A Charter was also established and signed by participating agencies as solidarity and clarity of purpose (photograph 2).



Photograph 2. Signing the IRTF Charter
(from left) Joseph Klinger, State of IL; Jerome Zeringue, State of LA; Bob Hainly, USGS; MG Mike Walsh, USACE; CDR;Tim Wendt, USCG; Mike Womack, State of MS; James Murphy, MARAD

The paragraph on the signatory page reads as follows:

The Interagency Recovery Task Force was established to create a highly communicative and collaborative forum of state and Federal agencies with common interests and authorities to affect the repair, recovery and evaluation necessitated by the historic 2011 Mississippi River flood event. The signatory state and Federal agencies will consider a wide range of traditional and innovative options to develop meaningful solutions for short and long-term restoration efforts. The following state and Federal representatives are committed to working together to effectively and efficiently serve the American public and private interests for the protection of human life/safety and economic prosperity:

The team was purposefully assembled to be strictly intergovernmental and multiple state in nature. Participating agency representatives contributed a broad range of relevant and crucial experience and information to this team effort. The Corps maintained and distributed a contact database and was

responsible for organizing, coordinating and facilitating team meetings, as well as recording and maintaining final meeting minutes.

II. MEETING SUMMARIES (Note: As these meetings occurred over very dynamic 1-yr time period, values expressed for # projects and \$ cost estimates are as of the dates they were presented)

Eight IRTF meetings were convened at various locations throughout the Mississippi Valley between May 28, 2011 and June 30, 2012. The first and last two meetings in this time period were conducted as webinars while the other five were one-day face-to-face meetings. Meeting agendas, presentations and handouts are all available on the Corps Regional Flood Risk Management Website (<http://www.mvd.usace.army.mil/>). The following provides a brief characterization of each of these meetings and their respective topics of discussion.

A. May 27, 2011 Webinar. The first session of the IRTF was convened as a webinar and focused on the need and purpose of the IRTF, flood fight efforts, introduction to OW-R and Regional Flood Risk Management. Read-ahead materials were distributed in advance of this meeting that provided additional descriptions, diagrams and graphics intended to introduce IRTF members to these agenda items and stimulate discussion on the various topics and challenges the IRTF would face in coming months.

Shared responsibility for *Driving Down Flood Risk* and the FRM *Life-Cycle* were central topics covered in the read-ahead material and IRTF discussion. Effective FRM requires the integration of mitigation planning, preparedness, response, and recovery programs and activities into a coordinated FRM “life-cycle” framework. The four general phases of the FRM cycle are mitigation planning, preparation, response, and recovery. The conceptual framework for implementing the FRM program is focused on ensuring our programs and authorities and those of our Federal, state, local, and tribal partners are coordinated and synchronized so that our combined actions achieve effective management of the flood risk. The FRM “Life Cycle” (figure 1) depicts the relationship between Corps program activities and partner agencies within the cycle. Interagency shared responsibility is at the core of the FRM Life Cycle. This approach recognizes the reality that, ultimately, Mother Nature will “grade” the success of the collaborative effort during future flood events.

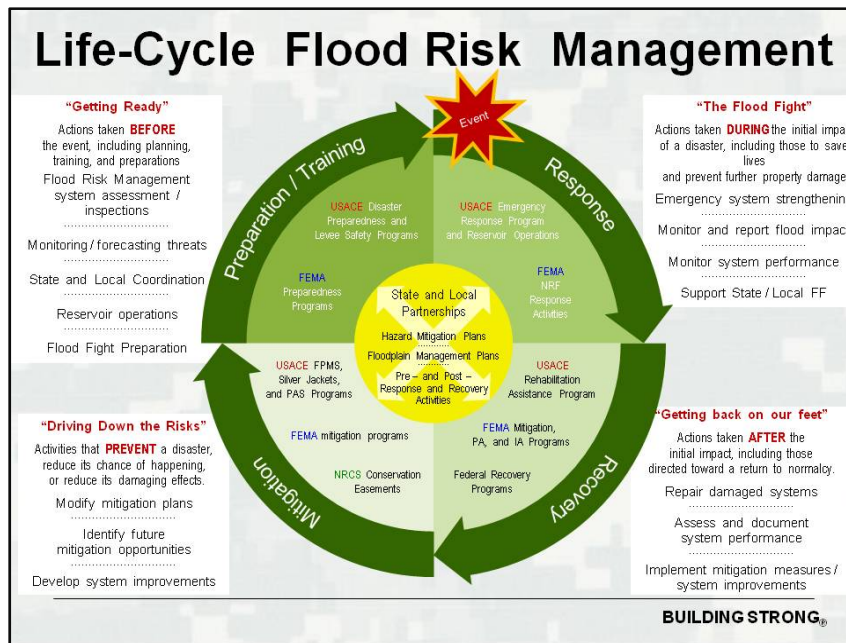


Figure 1. Flood Risk Management Life Cycle

The Corps is a key contributor in “driving down” the Nation’s flood risks through its programs to

1. plan structural and nonstructural projects to manage flood risks;
2. inspect the condition of existing FRM infrastructure;
3. provide technical and planning support to states and communities;
4. conduct emergency measures to alleviate flooding consequences; and
5. rehabilitate levees and other FRM infrastructure damaged by flooding.

It is important to bear in mind that responsibility for managing the Nation’s flood risks does not lie exclusively with the Corps or any other single Federal or non-Federal entity. Rather, responsibility is shared across multiple Federal, state, and local government agencies, with a complex set of programs and authorities, and private citizen choices/actions.

Operation Watershed-Recovery was designed to deliver effective and efficient repair and restoration of the valuable FRM and navigation systems for the Mississippi River (figure 2). In the early morning hours of May 1, 2011, OW-R was activated per MG Walsh over concerns for the rapid escalation of the Mississippi River Basin Flood Event. Operation Watershed-Recovery was established with three active Operational Cells: Current Operations (0-24 hrs), Future Operations (24+ hrs), and Recovery Operations (Post Flood).

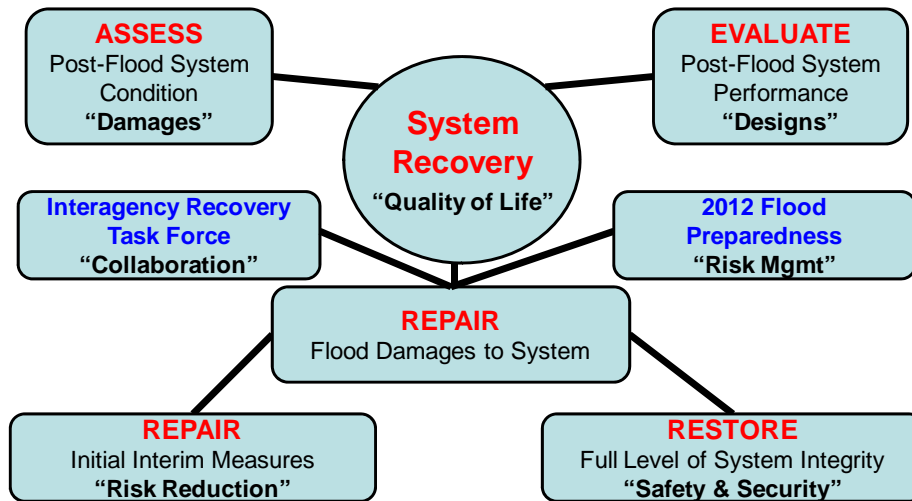


Figure 2. Operation Watershed – Recovery

The OW-R cell was initiated simultaneously with the flood fight effort given the expectation that damages from this systemic and historic event would require extensive repair/rehabilitation of Corps projects, facilities and structures in addition to PL84-99 levee repairs. While not yet fully realized at the time of the first meeting, the geographical extent and nature of flood-related damages were expected to be of such a magnitude as to surpass the Corps’ ability to fully repair/rehabilitate under normal funding mechanisms. MVD was preparing for the near-term assessment of damages, evaluation of system performance, repair alternatives designed to repair and restore this valuable FRM and navigation system.

B. June 22, 2011, Memphis, TN. Representatives from four states (TN, MS, IL, MO) and eight agencies (NWS, FEMA, USDA, USEPA, USGS, USCG, MARAD, USACE) attended the first meeting (photograph 3).



Photograph 3. Meeting in Session

Representatives from the Corps' HQ, MVD, Great Lakes and Ohio River Division (LRD), Southwest Division, and the Memphis District were also in attendance. The collaborative task force aimed to set priorities and plan a comprehensive and holistic approach to restore the watershed.

Communication and participation was crucial in making the best decisions for current impacts and future FRM in the valley. By pooling resources, talents, and expertise, to create short- and long-term restoration priorities, the task force focused on key elements that protect the lives and livelihoods of millions of Americans and ensured the system is prepared to prevent future catastrophic flooding. The meeting was very successful and dialogue toward recovery was very productive.

Action Items were generated along with member feedback on how they thought their information and reconstruction needs could best be met in this collaborative effort. Several members requested the weblink or CD copies of the recently completed Corps' OW-R video that had been shown at the beginning of the meeting. They felt this would better help their supervisors and coworkers better appreciate the flood recovery challenge and need for interagency collaboration.

Topics identified for the next meeting included the development of a draft IRTF management plan and charter, regional recovery prioritization, critical recovery challenges and development of a repair plan for the coming year.

C. August 23, 2011, Pearl, MS. The Mississippi Emergency Management Agency (MEMA) led by Director Mr. Mike Womack and staff, hosted the next meeting. In attendance were representatives from four states (MO, IL, MS, LA) and nine agencies (NWS, FEMA, USDA, USGS, USCG, MARAD, USFWS, USEPA, USACE) (photograph 4).



Photograph 4. MR&T History Lesson

Topics discussed were critical to 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 designate that the MR&T:

- 1) is one of the largest, most comprehensive and successful FRM Systems in the world;
- 2) is comprised of levees, channel stabilization, tributary improvements, and floodways; and
- 3) has \$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 three Districts. The process on how those items were ranked was also discussed. Dave Busse, Technical Lead for the System Performance Evaluation 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 FRM teams (Silver Jackets).

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

D. October 20, 2011, New Orleans, LA. This marked the fourth IRTF meeting, hosted by the State of Louisiana, Coastal Restoration, and led by Jerome Zeringue. In attendance were four states (MO, IL, MS, LA) and eight agencies (NWS, FEMA, USDA, USGS, USCG, MARAD, USFWS, USACE). Representatives from USEPA indicated they would no longer be able to participate in the IRTF. MG Walsh shared the message that the probability of a supplemental appropriation for this flood is very low. He further explained that the Corps’ self-financing would likely be able to fund only the top 10 most critical projects; the rest of the repairs would be unfunded, leaving the system vulnerable and at risk for the 2012 spring floods and possibly through the next decade. Mr. Zeringue discussed the importance of protecting the Louisiana coastline. He explained losing the coastline is a significant loss to both the natural ecosystem and flood risk management.

At this meeting it was announced that the Corps' Headquarters issued a new Operational Order requiring a National perspective on the System Performance Evaluation and recovery efforts. The geographical scale of 2011 natural disasters with flooding spread throughout the Mississippi Basin and tropical storms in the Northeast have required Corps' HQ take a broader perspective of the aftermath spread across multiple Corps' Divisions. To create a comprehensive performance assessment report, will require the research and support of the Northwest Division, the MVD and the LRD. Because the flood emergency situation ended ahead of others, MVD already has damage assessments completed and our list of regional priorities. HQ needs to review our list of priorities with the lists from the other Divisions in order to have a comprehensive list of repair items from which to establish a single listing of priorities for the watershed.

Next was a review of OW-R components. Damage assessments were largely completed by September 30, 2011. Phase I, critical interim repair prioritization has revealed 93 critical MR&T and O&M repair projects, plus five PL84-99 projects, which totaled \$800M. The top 10 funded projects totaled \$75M. As damage assessments continued, a Phase II list added an additional 44 items of concern, totaling \$120M. The 142 items completes the damage assessment review process, reaching close to our initial estimate of \$1B to repair the system before spring. The Corps has so far only been able to self financing the top 10 critical projects. The Secretary of the Army moved funds from fully funded projects on account of the life and safety issue with critical flood repair projects. Out year funds are being put toward this flood recovery. This is how the Corps is proposing to address imminent life and safety issues without a supplemental.

Updated maps of the critical list items were shared along with an updated spreadsheet of items sorted by state. MG Walsh brought up the fact that in order to restore the MO levees, seepage issues on the IL side need to be taken care of at the same time to keep from adding pressure to one side or the other. Proactive efforts were underway to obtain real estate rights-of-way in IL, KY and MO to clear the way for eventual flood repair project design and construction. It was discussed that unrepaired levees would most likely get an unacceptable rating in annual inspections, which, from a USDA and FEMA perspective, is likely to drive up the cost of flood insurance for farmers, businesses and homeowners.

At the meeting, the MVD System Performance Evaluation team update was given. MVD's subject matter experts from a wide variety of disciplines are well engaged in this effort. Input and information from other Federal and state agencies, as well as stakeholders and NGOs are being assembled as well.

The State perspective started with a need to focus on planning and communication. The activation of the Bird's Point-New Madrid floodway was discussed with respect to the importance of planning/communication. It was recommended to take a harder look at future mitigation measures. Nationally, LIDAR is needed in order to make accurate flood and inundation maps. States need to know what stakeholders are being communicated with, in case there are others who should be getting the messages. It was mentioned that flood response points of contact may not be the same for recovery. Mississippi has two levee boards with different priorities; these boards need alignment and the support of a regional recovery plan. The State of Mississippi has had households with repetitive loss and no way to help low income households. FEMA responded that there are hazardous mitigation grants and FEMA grants but only one can be used.

The Federal perspective started with an update that the NWS' Service Assessment report scheduled to be completed in early 2012. It evaluates flood warning and forecast operations and interagency coordination/collaboration. Water resource managers, forecasters and researchers need to enhance communication and coordination to ensure accurate data. FEMA has the challenge of risk mapping for public assistance with no additional funding. The USGS asked, "What is the cost if we don't make repairs?" Corps responded the in current event ~ \$120 billion in damages avoided, over 600,000

people would have been evacuated from Baton Rouge and New Orleans. One must also bear in mind that while MR&T system suffered ~\$800M in damages it prevented over \$110B in damages. USDA/NRCS will work with requests for damages in floodplain easements. NRCS indicated drainage system cleanout of \$25M was done in Bird's Point-New Madrid floodway after 2008 interior flooding. Current estimates for same drainage system cleanout are in \$70M range. USCG has a waterway plan that needs to compare trigger points in their plan with damage areas listed by the Corps. MARAD informed all that navigation continued to operate during the flood; 600M tons in commodities, most of which was moving in April and May. Commodities need to move by river to save air quality and protection from on road use.

E. December 14, 2011, St. Louis, MO. Progress and preparedness led the discussion at the fifth IRTF meeting hosted by the State of Missouri at the St. Louis District headquarters (photograph 5). The region has documented cumulative damages to Federal levees, floodwalls, structures, floodways, ports and navigation channels with current repair estimates in the \$2 billion range.



Photograph 5. Listening to December 14, 2011 Presentations
(from left) MG John W. Peabody; Mr. Al Lee (SES)-MVD; Mr. Dru Buntin,-MO Department of Natural Resources, and COL Christopher Hall., DE, MVS

“We’ve made some significant progress in assessing damages up and down the river system,” MG John Peabody, the Corps’ MVD Commander said. *“Our Nation cannot recover without all the relevant experience that is exhibited by all of our partners.”*

IRTF partners reviewed the status of the Corps’ damage assessments. The review allowed participants to fully appreciate the nature and extent of impaired flood risk management and navigation systems along the Mississippi River.

MG Peabody and MVD Regional Flood Risk Manager Scott Whitney expressed the reality of rebuilding and recovering operations in a constrained economic environment. The Corps’ recovery operations consist of 142 critical repair projects with cost estimates totaling \$1 billion dollars, along with another several hundred non-critical repair projects. The non-critical items are projected to require another \$1 billion to bring systems back to pre-flood conditions and performance. Whitney explained to partners at the meeting the current funds have only allowed the Corps to begin construction and design work on approximately 22 of our 142 critical projects.

Scott Whitney explained, *“At this rate it will take nearly a decade to effect repairs on only our most critical repair sites. That is an unacceptably long period of time to leave our citizens and industry exposed to increased risk of severe or even catastrophic flood damage from future flood events.”*

“We’ve harvested \$120 million from other projects across the Corps,” Peabody said expressing the Corps commitment to rebuilding critical flood risk management structures before the next flood season. *“We are seeing a unique demand given unique fiscal circumstances.”*

The Corps’ goal at this phase of OW-R is restoring the quality of life to the citizens and reliability of flood control and navigation structures affected by high water. MVD projects include repairing extensive areas of levees and floodwalls, water control structures, reservoirs, navigation channels and ports and harbors spread across the border states of IL, MO, MS, LA, TN, ND, IA, and WI. As they rebuild and look to the future, the Corps is also looking back at the operational decision process and communications relative to the management of the Mississippi River System last year.

“Right now, we are asking three questions: How did the system perform; how would the system perform now and what does the system need to perform in the future?” asked Hank DeHaan, OW-R System Performance Evaluation Program Manager. Corps members from the six Districts in the MVD are working together to study lessons learned and are in the process of preparing a system performance evaluation report (aka Post-Flood Report) that will assist in recovery and improvement, overall system management and will serve as a reference and resource in future flood fights. The report was scheduled for final submittal in September 2012. Recent funding shortfalls have placed the effort on pause until additional funding transfers can be approved by Congress. The Corps team is also looking to improve communication with IRTF partners and the public with a new web based mapping product that allows individuals to locate the flood damaged sites in their area and access information papers and construction fact sheets. Given the limited repair funding the Corps has been able to secure, Whitney said, it is clear that many sites will still be in their current damaged condition through the next flood season.

The current conditions and projected forecast brought the IRTF members to the challenges they all face as they prepare for the coming flood season. *“It is more than possible that we will have some flooding to deal with going into the next flood season,”* Peabody said. IRTF members concluded the meeting as representatives from the NWS, FEMA, the USDA, the USGS, the U.S. Coast Guard, and the Maritime Administration discussed the challenges they have overcome and still face as they recover not only from record floods, but tornadoes, natural disaster and other Federal emergencies over the last year. *“Together, as a team, we’ll be able to overcome our challenges and deliver what the citizens expect from us,”* Peabody said.

F. February 22-23, 2012, Memphis, TN. MG John Peabody along with Col Vernie Reichling, MVM Commander, welcomed the IRTF team at the sixth meeting (photograph 6). This time, the key messages emphasized the vulnerable MR&T system and it was agreed that the upcoming 2012 spring season would require extra vigilance and advanced preparedness to ensure the safety and well-being of citizens, infrastructure, and industry. With the \$1.724 billion Nationwide Disaster Relief Appropriations Act funds, the Corps could begin to aggressively repair and restore hundreds of damaged flood control and navigation system components. By the time this meeting convened, each District had established its FY12 workplans, reflecting implementation and acquisition strategy for repair projects. The list of projects under construction in FY12 would be shared with the IRTF. All team members were interested in being a part and having input to the MR&T Post Flood Report. This collaborative effort from the partners proved to be the strength of this team. It was agreed that coordination efforts would be discussed at the April meeting of the IRTF.



Photograph 6. Discussing Flood Risk Vulnerabilities
Pictured in front row from left MEMA Director Robert Latham, Jr.;
FEMA Region 7 Director Beth Freeman; MVD USACE (SES) Al Lee

This time the meeting was held in conjunction with a Regional Flood Risk Management Workshop in order for team members to weigh in on the decision-making process prior to the spring floods. The regional flood preparedness team completed risk information templates for those sites with greater vulnerabilities. With the known risk at each site, appropriate management measures will be taken to address the weakness in the form of possible interim construction measures, flood fight efforts and monitoring. Trigger points will be determined for reservoirs and floodways in the event temporary changes in operation are required. Strategies are being developed that will maximize flood storage while effectively routing floodwaters. This information will help the Corps, partners, and the public better prepare for the upcoming flood season and beyond as construction begins.

In addition to the risk information, select high-risk areas within the Mississippi River Valley were modeled with a hypothetical major flood using historical data and the NWS spring forecast and mapped to show potential inundation (e.g., inundation timing and depth). This regionally standardized inundation information is extremely helpful for interagency collaboration designed to enhance or improve preparation, mitigation and response to flooding emergencies. Preliminary risk assessment information papers and sub-system papers gave a true picture of the weakened areas, allowing for better planning decisions in order to buy down risk.

Risk communication processes and tools have been improved to better inform and prepare the public. From recent events, websites have been created to share up-to-date information to include regional risk maps, press releases, and communication pamphlets. Connect to CorpsMap and the Regional Flood Risk Management web pages by using the MVD homepage at <http://www.mvd.usace.army.mil/>. In the future, the Corps hopes to continue to update the public using the new map application, web sites, and social networking. There is even a possibility of an alert system to our emergency management partners. Transparent communication and public safety is our goal as together we make repairs to the 3rd largest watershed in the world.

G. April 6, 2012 Webinar. The task force continued to share expertise and to keep one another apprised so as not to duplicate efforts. The seventh meeting of the IRTF had a total of 28 participants with representatives from MVD, 3 Corps Districts (MVP, MVR and MVS); the States of Illinois and Missouri; and 7 agencies (NWS, FEMA, NRCS, USGS, USCG, MARAD, and USFWS).

MG John Peabody welcomed the team and briefly discussed his three primary tenets for effecting flood repairs:

- 1) Maximize System Risk Reduction by Next Flood Season (photograph 7)
- 2) Leverage Corps and Regional Resources to Optimize execution
- 3) Substantially Complete all Remaining Items Prior to 2014 Flood Season



Photograph 7. Repair Activity at Middle Crevasse of BPNM Floodway
his is one of many locations with aggressive repair construction activity

MG Peabody also provided short overview of the High Water Inspection with MRC and associated public meetings. MG Peabody continued to encourage communication and vigilance in the shared responsibility for the safety and security from natural perils and reminded ITRF members that April is historically the highest flood risk month, followed immediately by Hurricane Season.

2012 Flood Preparedness: The Corps provided a short presentation on the 2012 Flood Preparedness Reference Guide, highlighting the application and accessibility to final products for each of the three primary components of Risk Identification, Risk Management and Risk Communication. The products resulting from this effort are available through the MVD Flood Preparedness Website, CorpsMap, or the appropriate Corps District POC. A more expanded Summary Report detailing the 2011 flood event and associated risk management and preparedness efforts was provided on March 29, 2012 for IRTF member review and comment. Intent is to make this report available on the MVD RFRM website on April 9, 2012.

Flood Recovery Plan: Key tenets to implementation strategy focused on near term risk reduction, leveraged resourcing, and substantially completed by 2014 Flood Season. Provided slides depict project completion pie charts by Calendar Year and Flood Season and bar charts of projects completed by FRAGO Class (Risk) and Calendar Year.

Projects By Calendar Year:

2012	127
2013	85
post 2013	45

Projects by Flood Season

2013	153
2014	64
post 2014	40

Post Flood Report: Final Draft Workplan under Review, MRC IPRs being scheduled, continued synchronization with HQ effort, IRTF Review Plan development and ensuring this effort is aligned with the MR&T Strategic Vision and Plan

Regional Communication Plan: As activity is now rapidly moving to local project repair construction, it will remain important for continued regional communication, awareness and tracking of continued progress and challenges. Many of the relationships and tools developed during past several months will continue to serve as an effective network of interagency communication and collaboration that we need to see preserved and enhanced. The DRAFT Regional Communication Plan recounts some of the best practices and tools developed over recent months of Flood Recovery with strategy for their continued development and utilization within the ongoing OW-R Flood Repair Plan. IRTF members were encouraged to provide comment and review on this document.

Member Perspectives

- NWS forecasts continue to predict average to below average precipitation and low flood risk for most of the Mississippi Basin. The new 28-day contingency forecast product for select locations along the mainstem Mississippi and Missouri Rivers is nearly complete. The NWS River Forecast Centers will use 16 days of forecast rainfall to generate this product.
- MARAD complimented the Corps on team's professionalism and collaboration over recent months to allow timely and effective repair to our navigation system.
- FEMA appreciates efforts to achieve common operating picture across the FRM life-cycle.
- NRCS interested in the completion schedule for BP-NM Floodway levee repair as they continue to invest significant EWP funds to clean-out ditches. Corps Responded that current goal is for Dec 2012 completion to pre-flood height of 62.5' however this is subject to careful review and progress on the confluence area projects. Memphis district will be providing regular status updates for on confluence area project construction status that will provide readily accessible information for stakeholders and public.
- USFWS – appreciate invitation to be part of this Task Force and good exchange of information
- USCG – expressed strong support for the work and discussion that the IRTF has had over past several months, it has been value added.
- USGS – Very pleased with their involvement and information shared at these meetings, looking forward to review and input into Post Flood Recovery Report.

H. June 14, 2012 Webinar. The focus of this webinar was on the status of flood recovery repairs and lessons learned from the 2011-12 IRTF experience (photograph 8). The April meeting marked the eighth Task Force meeting. This meeting had a total of 22 participants with representatives from MVD; 2 Corps Districts (MVR and MVS); IWR; the States of Missouri and Illinois; and 7 Federal agencies (NWS, FEMA, NRCS, USGS, USCG, MARAD, and USFWS).



Photograph 8. Buck Chute Mainline Levee Seepage Repair located just north of Vicksburg, MS

MG John Peabody welcomed the team and briefly discussed the Corps commitment to drive down risk over coming months to ensure next flood season is one with better lines of protection and reduced system risk. He expressed sincere appreciation for member agency commitment and collaboration in this shared responsibility and the hard work that has gone into past year of post flood assessment and initiation of critical repairs. MG Peabody further stressed the importance of recording agencies perspectives and feedback on the value added nature of IRTF experience, lessons learned and possible areas of improvement. He introduced his recommendation for IRTF downshift to a “sustainment mode” that will ensure continued availability of flood repair progress information and meeting schedule that is less regular as we have for past year. He further stressed we need to collectively strive to maintain vigilance and communications while focusing energy on the challenging construction repair activity. The introductory comments concluded with a proposal for a January 2013 Regional Flood Risk Management Workshop to present and further engender interagency discussion with respect to the repair status and preparedness for the 2013 flood season.

1. Operation Watershed Overview. During the session focused on status of Operation Watershed efforts, Scott Whitney provided a two part overview focused on OW-R Quick Review and Status tracking of OW-R construction effort.

OW-R Quick Review: A three-slide retrospective covering:

- a. a 200 year vision for the Mississippi River Watershed. Provided a common bond for an intergenerational commitment to balancing the Nation’s needs for security and flood risk management; environmental sustainability and recreation; infrastructure and energy; water supply and water quality; movement of goods and agriculture and manufacturing.;
- b. 2011 Flood facts and figures of the record setting event that saw a fully integrated flood damage control system that provided “room for the river” perform as designed saving an estimated \$110 billion in damages without a single life lost; and
- c. Interdependent structure and components of OW-R that established effective strategy to assess, evaluate, collaborate, mitigate and effect repairs following the 2011 Flood

event. Emphasized the IRTFs important role in each of these three retrospective topics.

OW-R Status Tracking of Construction Effort: re-iterated the three main points for MVD's Flood Repair Plan:

- a. Maximize System Risk Reduction by Next Flood Season;
- b. Substantially Complete all Remaining Items Prior to 2014 Flood Season; and
- c. MVD currently funded for roughly \$1.2B in construction repairs. Emphasized that all MVD Districts are making good headway in their initiation and execution of construction activity to repair flood damages throughout the basin.

A single slide was presented for each of the six MVD districts showing construction images and a table summarizing the latest status of construction projects.

Mr. Whitney concluded the presentation/discussion on construction project status report with a live demo of CorpsMap highlighting a newly added feature for "Areas of Interest" represented by a Blue asterisk on the map. Currently, one area of interest has been created for the Miss/Ohio River Confluence area. This item provides access to a biweekly status report with photos and site status descriptions for the several key OW-R projects in this confluence area. All active OW-R construction projects have provided updated construction fact sheets every 30 days to provide interested public and stakeholders with relevant information concerning project status, cost, challenges and completion schedule.

2. Lessons Learned & Next Steps. The majority of the meeting was occupied by a robust discussion on the lessons learned and recommendations for future interagency collaborative efforts. A synopsis of the Lessons Learned and recommendations for Next Steps discussed are provided in subsequent sections IV and V, respectively. As a general synopsis, member agencies extolled the many positive and value-added aspects of the IRTF experience and supported recommendation to come together again in January 2013 to review recovery progress and preparation for 2013 flood season.

3. Member Perspectives

State of MO. Very comfortable with the progress and success achieved by the IRTF. Impressed with the communication needs and tools this group has addressed. This has absolutely been a valuable experience. Also highlighted fact that Silver Jackets teams have broader focus beyond flooding and is great forum for continued development and maturation of the interagency collaboration at the local level. Believe IRTF should maintain higher level perspectives on key regional FRM issues and challenges

State of IL. Very impressed with the IRTF and Corps leadership and efforts in driving the system repairs to near-term completion. Personal thank you to MG Walsh and MG Peabody for giving the states a voice in the flood recovery process.

USGS. appreciative of the Corps investment of time and resources in making the IRTF so successful. This has been very educational in the various roles that state/federal agencies take both in fighting the flood and recovering from the aftermath. This has allowed USGS to see how and where we can assist in improving flood risk awareness and lending our services to other agencies.

MARAD. this has been a very useful and highly informative forum for interagency discussion and collaboration. It has been especially useful to see and hear of the many different programs and perspectives from other member agency representatives. Would like to express a sincere Thank-You to the Corps for making this forum possible.

NWS. expressed shared sentiments on the many positive aspects we have discussed with respect to the IRTF experience. Have definitely become more sensitized to the roles and responsibilities of other state/federal agencies. Has allowed NWS to customize some of our products and services to better serve the needs of other management agencies. The 28-d river stage forecasts based on 16-d rainfall forecasts were a direct result of the IRTF request.

FEMA. Called the IRTF “a tremendous educational experience and definitely a model interagency forum we should seek to preserve and replicate in other regions of the US.”

NRCS. very much appreciate the opportunity to participate in this forum. Commended the Corps on the regional prioritization process, excellent communication and facilitating the IRTF in support of the flood recovery.

USFWS. appreciate invitation to be part of this Task Force and good exchange of information

USCG. this has been a worthwhile endeavor that has produced a number of useful products. Especially like the new 28-d river forecasts that would likely not have been developed without IRTF expressed desire for this new capability.

4. Wrap-Up by MG Peabody. MG Peabody again expressed his appreciation for member agency collaboration and honest feedback throughout the IRTF experience.

“We have heard a number of useful recommendations presented during this session and the Corps will carefully analyze and discuss for future implementation. The experience of the 2011 Flood and IRTF has really opened a number of eyes to the importance and value of an integrated systems approach and interagency collaboration to successful Flood Risk Management. From all the positive and reinforcing comments heard today it is clear that we hit a “sweet spot” with the creation and execution of the Task Force for the Flood Recovery. Several have mentioned the goodness of the Task Force concept that should be extended beyond just the recovery process. You mentioned we should similarly engage on Flood Preparedness and Flood Mitigation activities. I believe the recommendation for an annual Regional Flood Risk Management workshop is a sound one that will allow this expansion in focus to cover many interrelated Flood Risk Management challenges. We will continue to carefully track and report on construction repair progress with intent to drive down regional flood risk before coming flood season. Should any member require additional information or clarification in the coming months, please don’t hesitate to contact USACE staff. We will look forward to coming together again at a Regional Flood Risk Management Workshop for in January 2013, additional planning and details on this meeting will be forthcoming.”

III. PRODUCTS

A. Newsletters. A series of six *Interagency Recovery Task Force* newsletters and three ‘*Our Mississippi*’ newsletters were produced over the course of the past year. These newsletters served as important rapid response communication tools which quickly and effectively informed State/Federal partners, stakeholders, members of Congress and the general public about the continued efforts and progress of 2011 flood recovery efforts.

The IRTF newsletters provided the Corps and our partners a vehicle to communicate the flood recovery efforts through a series of pictures and articles which captured the focus of discussions, topics of concern; and status of ongoing recovery efforts during the first year of post flood recovery. The IRTF newsletters were distributed electronically to a large email distribution and posted to the RFRM website for direct public access. In the future, a sixth IRTF newsletter is planned for distribution June 2012 to provide synopsis of this IRTF Annual Report and the April and June 2012 webinars.

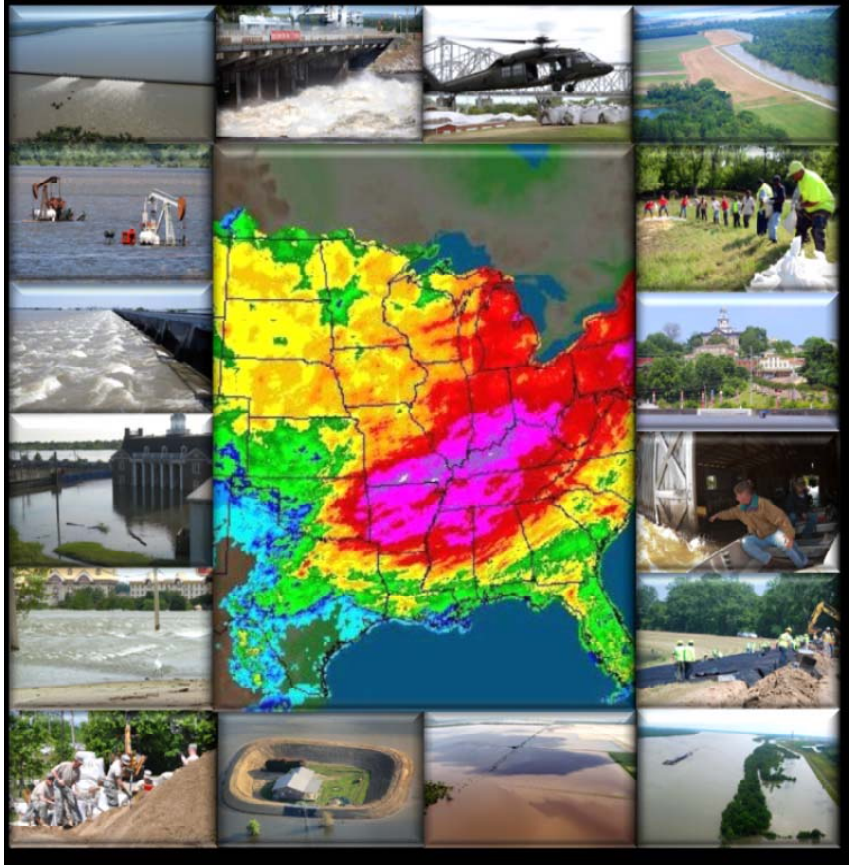


The three quarterly *Our Mississippi* newsletters were also produced with a number of Mississippi River Basin flood recovery and public interest stories. The *Our Mississippi* newsletter was originally designed as a Corps communication tool for the Upper Mississippi River with the intent that someday the publication could be expanded to a publication for the entire Mississippi River Basin. The 2011 Flood Event was a watershed-focused response and recovery effort and offered opportunity to expand the focus and distribution of this regional newsletter. Starting with the fall 2011 edition, all subsequent quarterly publications will continue to provide a diverse range of Mississippi River stories of interest and will continue to serve as a communication tool for the 2011 flood recovery efforts. The *Our Mississippi* newsletter is distributed to 50,000+ subscribers throughout the Nation and reaches additional readership through electronic distributions and the *Our Mississippi* website.

Together these two newsletters were effective communication and educational tools which provided the Corps and our key partners the ability to reach out to various target audiences simultaneously. There has been an overwhelming response of compliments and letters of appreciation from those receiving these newsletters, which speaks highly to the success of both.

B. 2012 Flood Preparedness. A significant milestone for the IRTF and State/Federal Emergency Flood Responders was the Regional Flood Risk Management Workshop held in Memphis, TN on February 23, 2012 (photograph 9). This workshop, called “2012 Flood Preparedness, was the idea of the IRTF and brought together a group of over 80 State/Federal agency representatives for a day-long series of presentations and discussions. Taking into account the vulnerable condition of the MR&T

project and projected NWS spring forecast, the Corps mobilized a Regional 2012 Flood Preparedness Team in mid December, 2011 to develop plans to manage, mitigate and communicate flood risks throughout the MR&T system. This regional effort was focused on three primary endeavors: identify key risks within the MR&T, ways to minimize risk, and effectively communicate this information to partners, stakeholders and the public.



Photograph 9. Collage from Regional Flood Risk Management Workshop
Center map unprecedented rainfall in the range of 600-1000% above average in parts of this region. The region received 20” to 22” of rainfall in the 10 day period from April 22 through May 2, 2011. Rainfall estimates from April 22-24 indicated rainfall of up to 12” in those 3 days alone.

The February 23, 2012 interagency workshop served to carefully coordinate, refine and communicate this team’s findings, tools and recommendations across the broad array of those public officials with shared responsibility for the protection of the lives and livelihoods from flooding events. The majority of the presentations, tools, brochures and products produced during this four month effort are currently accessible on the RFRM website under “Flood Preparedness.”

A 2012 Flood Preparedness Summary Report provided a comprehensive narrative of this collaborative effort. This document was developed to capture, in general terms, the efforts the MVD and partner agencies have undertaken to manage and mitigate risks associated with the great flood of 2011 and in preparation for the next flood event. It is intended to be used as a stand-alone document and in conjunction with other products developed under OW-R to communicate both internally and externally the risks which remain to the public in the wake of one on the largest flood on record.

The Flood Preparedness Report includes many tables that summarize and index information that the reader can utilize in conjunction with other tools such as CorpsMap. Each damaged site included in this document has undergone extensive investigation and validation by experienced Corps personnel.

The damages incurred during the Flood of 2011 includes nearly 2 billion dollars worth of damages to critical infrastructure necessary to flood risk management and navigation systems that benefit both the Nation's population and its economy. Further site specific detailed information is publicly available via the Regional Flood Risk Management and CorpsMap websites (<http://www.mvd.usace.army.mil/>) and other products such as Information Papers, Risk Management Papers, and Construction Fact Sheets.

C. Videos. Two OW-R educational videos were produced in 2011-2012. The first, “2011 Flood Fight” was premiered at the first IRTF face-to-face meeting in Memphis, TN in late June 2011. The second video, “Flood Preparedness and Recovery Efforts,” was released to IRTF members in April 2012. Both of these videos were posted to YouTube and the Corps Facebook page for unlimited public access and distribution. These videos have been used in a number of National meetings and congressional briefings.

D. Website. IRTF members also influenced the creation and refinement of a Regional Flood Risk Management website designed to improve communication, education and access to a diverse array of Flood Risk information/resources. The RFRM website has become a central repository and link to district, regional and National FRM related resources and documents (figure 3). The website was especially useful in making the many IRTF meeting presentations/minutes and products readily accessible to members and interested stakeholders. The use of social media as a RFRM communication tool has continued to grow and is directly linked through the website. The IRTF expects the MVD RFRM website will continue to evolve to better meet the informational needs of our partners, stakeholders and public.



Figure 3. Screen Shot of RFRMWebsite

E. CorpsMap. CorpsMap was originally developed as the single authoritative source for the Corps' National geospatial data assets (figure 4). It is a geospatial web platform that is sponsored by HQ and denoted in the Engineer Regulations as the *USACE Enterprise Web Geospatial Platform*. Initially, CorpsMap was an exclusively internal Corps system. However, the MVD GIS cadre worked with both the regional OW-R management team and the National GIS team to establish one of the first External CorpsMap sites: <http://www.mvd.usace.army.mil/>, with many capabilities specific to OW-R needs. A user's manual was developed to assist public access and utilization of this site.

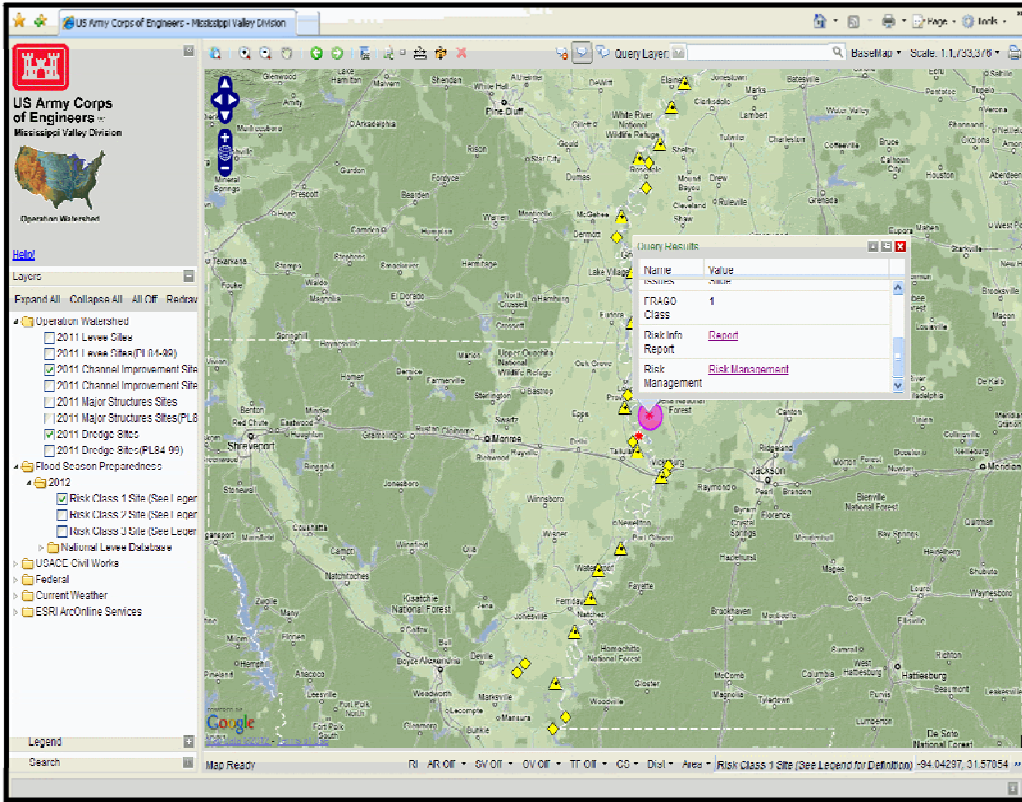


Figure 4. Screen Shot of CorpsMap

Table 1 is a rough outline of some of the key products currently served via CorpsMap, along with a brief purpose and an envisioned update schedule.

Table 1. CorpsMap Publically Accessible Products

Product	Purpose	Updated
Project Information Paper	provide general background on flood damages, potential consequences, repair options, and tentative schedule	Annually by District PM/PDT
Project Risk Management Paper	describe how risks at damaged locations are being addressed through construction, interim measures, and flood fight preparation	Biannually by District PM/PDT, Construction Rep and RCO
Project Construction Fact Sheet	provide monthly status of ongoing construction activity, key milestones, % completion, and project challenges	Monthly by PM/PDT and Construction Rep

F. Regional Communication Plan. IRTF member input was sought in the development of a Regional Communication Plan designed to provide structure and guidance regarding OW-R communications with partners, stakeholders, and the public. By carefully orchestrating notifications to the media and key interests regarding the status and outlook of flood damages, the Corps and our partners can facilitate public safety and raise awareness of ongoing flood recovery and flood preparedness.. Key messaging is focused on

- 1) damages and vulnerabilities,
- 2) reliability of MR&T,
- 3) near-term reduction of risk
- 4) shared responsibility of flood response, mitigation and risk reduction.

Although the Corps has positive messages to share about the MR&T system's accomplishments and joint preparedness, all involved in communication with our public must always convey compassion and sensitivity to those that suffered significant economic hardship and loss from this event. Effectively communicating the coordinated flood recovery efforts among the Federal, local and state governments will hopefully reduce public anxiety and promote confidence in the dedicated and purposeful approach government agencies are taking in collaboration with state and Federal partners to reestablish the full integrity of their flood control and navigation systems. There are three major parts to this Communication Plan:

- 1) Introduction, which includes principles of open and transparent communication, goals and objectives, background, audience and timeline,
- 2) Communication Strategy which identifies tools, methods, resources and protocols for communicating OW-R information methodology
- 3) Key Messaging which includes important facts/figures, talking points and "bridging messages"

The Regional Communication Strategy serves as a framework and guidance for both the internal and external transfer of OW-R information via CorpsMap, fact sheets, talking points, presentations, press releases, social media, and website. It will also highlight some of the key participants and groups with whom regular communication is required (e.g. stakeholders, levee districts, congressional, IRTF, State emergency managers, etc). It is important that this shared responsibility be well coordinated and controlled to ensure our communications are responsive, purposeful, and consistent. Research from past hurricane and flood disasters in 2008-2009 taught the Corps to better communicate safety information, flood risk management strategies, and recovery assistance to the public. Based on those lessons learned, the goal is to proactively connect stakeholders and the public with fact-based and timely information, and reaching a diverse target audience: partners, stakeholders, agencies, businesses, local communities. Natural disasters can't be specifically planned for, however, communication tools can be put in place that will continue to be updated and serve the most recent information.

G. Post-Flood Reports. Several of the member agencies have recently completed or are still engaged in the development of evaluative post-flood reports. While the IRTF meetings have had presentations on these evaluative reports, the reports themselves have largely remained internal to the respective state or Federal agency. Once their respective reviews and approvals are complete, these reports will be made available to fellow partners and public. The following provides a brief status or link to the various post-flood reports resulting from the 2011 Mississippi River Flood:

USACE-MVD is scheduled to complete the MR&T System Post Flood Report by October 2012. The MR&T System Post-Flood Report effort is an internal evaluation being performed by the MVD as part of its response to the historic 2011 Mississippi River Basin Flood Event. The effort will assess and document the operation and performance of the MR&T System and its components during the 2011 Flood. Recommendations for MR&T improvements and future studies will be developed and captured in the report based on the assessment. The report will provide valuable information for current MR&T recovery and future system completion, operation and management.

USCG – Report was completed in fall 2011, internal use and distribution

USGS – Final report completed and approved June 2012, intended for internal use and distribution. Requests for assistance to implement interagency recommendations will be pursued by contacts with individual agencies or through discussions at regional interagency meetings..

NWS – In March 2012, NOAA-NWS published a service assessment report entitled “*Spring 2011 Middle & Lower Mississippi River Valley Floods*”. This report is publically accessible via the following website link

https://verification.nws.noaa.gov/sats/sa/pdf/MississippiRiverFloodsSA_Final.pdf

State of Illinois – Draft Report for Flood Damage to Alexander County, IL received in February 2012.

While several of the member agencies have provided briefings of their ongoing flood recovery support efforts they did not produce post flood report documentation.

IV. LESSONS LEARNED

The efforts by the IRTF in 2011-2012 have served to improve working relationships, increase flood risk understanding and implement critical flood preparedness actions. Group discussion covered a broad and challenging array of tactical and strategic Flood Risk/Recovery responsibilities and challenges. Member agencies leveraged authorities, experience and resources to put the region on an aggressive and attainable path to recovery, increased flood risk awareness and recommendations for future flood preparedness. The regularity and focus of IRTF meetings and interactions were appropriately paced with the tempo and challenges of the recovery process.

A great deal has been learned from this flood season, particularly in the areas most damaged by the flood. That knowledge is being applied to both Federal, state and local recovery efforts to ensure timely restoration of FRM and navigation systems. Effective FRM requires the integration of mitigation planning, preparedness, response, and recovery programs and activities into a coordinated FRM “life-cycle” framework. The conceptual framework for implementing the FRM program is focused on ensuring programs and authorities of Federal, state, local, and tribal partners are coordinated and synchronized so that the combined actions achieve effective management of the flood risk. The Corps is a key contributor in “driving down” the Nation’s flood risks through its programs to

1. plan structural and nonstructural projects to manage flood risks;
2. inspect the condition of existing FRM infrastructure;
3. provide technical and planning support to states and communities;
4. conduct emergency measures to alleviate flooding consequences; and
5. rehabilitate levees and other FRM infrastructure damaged by flooding.

In May 2012, IRTF members were presented with three “Lessons Learned” oriented questions as means to record their feedback on the May 2011 through May 2012 IRTF experience. Responses to these questions were submitted in writing and provided verbally during the July 14, 2012 teleconference. For the purpose of this Annual Report, responses to the three questions have been summarized without attribution to individuals or agencies. The following views/quotes emphasize many of the key lessons learned as expressed by individual representatives.

Did the IRTF experience provide added value to your State or Federal agency and our shared public/stakeholders?

Overwhelming positive response from IRTF members indicating the experience was very beneficial and “value-added”. Many members provided specific examples of how they were able to beneficially use the information provided during the regular meetings. A brief listing of some of the examples provided by members included: synchronization of repairs; leveraging resources and expertise; identification of common risks/uncertainties; helped focus coordination/response; allowed direct linkage to other affiliations or endeavors; kept respective key leaders well informed; better understanding/appreciation for MR&T system; development of new communication and forecasting tools; understanding of complexities and challenges of repair effort; platform to discuss state perspectives and priorities; common vision and purpose; set an important precedent and model for interagency collaboration; learned a great deal about member agencies.

What improvements or enhancements to the IRTF concept would you recommend?

Recommendations included the following: conduct equitable balance of webinar and face-to-face meetings; need to have better state representation and participation; annual workshop excellent idea; incorporate more mitigation alternatives into discussions; working groups could help focus certain issues/challenges; would be good to expand topics of discussion and incorporate natural disaster simulation exercises; watershed planning efforts would benefit from an IRTF approach.

What are the top flood risk management challenges facing our region/nation today?

This question provided a number of insightful observations and responses from the members. Topping the list of most common responses were: Flood Risk awareness/education/ communication; Aging FRM infrastructure; Federal/State Funding levels. Also included in response were the following in no particular order: timely natural disaster recovery; standard protocols for flood inundation mapping and availability; routine FRM interagency workshops or exercises; relevant/understandable stream stage/streamflow data; unified approach to FRM preparation/mitigation; interagency collaboration; stalled out watershed planning efforts.

In summary, the following selection of views/quotes expressed by IRTF members capture some of the individual or collective Lessons Learned on a variety of topics/issues brought into the IRTF forum:

“The IRTF has provided tremendous education and serves as an excellent model for value-added interagency collaboration, it is one we should do all we can to emulate and keep going” Bruce Kinney, FEMA

“It is unfortunate that it has taken a natural disaster to bring us all together in such a collaborative fashion, we should have been doing this years ago!” Harold Deckard, NRCS

“The effort and information exchange that has gone into these IRTF meetings have been very impressive and educational”, Joseph Klingner, State of Illinois

“It has been particularly useful for me to hear the many state/federal perspectives on so many important interrelated issues.” Jim Murphy, MARAD

“The experiences shared at the meetings helped me see how each agency was connected (and sometimes disconnected) to and from the flood response and recovery process.” Robert Hainly, USGS.

“The IRTF process allowed the states to remain informed on the status of impacts and recovery efforts and provided a platform to discuss state perspectives and priorities.” Bryan Hopkins, State of Missouri

“The CorpsMap and NWS extended 28-d forecasts are two products that would likely not have come about, or been shared as extensively, without the IRTF discussion and dialogue.” Timothy Wendt, USCG

“The experience of the 2011 Flood and IRTF have really opened a number of eyes to the importance and value of an integrated systems approach and interagency collaboration to successful Flood Risk Management” MG John Peabody, USACE

V. NEXT STEPS

Given the very positive and reinforcing feedback from member agencies it was agreed that the IRTF should not immediately disband while the challenging recovery process continues. Many expressed strong support for the continued evolution of this model forum for interagency collaboration that can facilitate meeting our shared responsibility in all aspects of the flood risk management life cycle and possibly other regional issues as well. IRTF members recommended and endorsed MG Peabody’s recommendation we downshift to a “sustainment mode” that will ensure continued availability of flood repair progress information and a meeting schedule that is less regular than we have for past year. In this way we can maintain vigilance and communications while focusing our energy on the challenging construction repair activity. It was further recommended and endorsed that the Corps develop plans for a Regional Flood Risk Management Workshop to reconvene IRTF and the Regional Flood Risk Management Team (similar interagency task force resulting from 2008 UMR flood) to present and discuss the recovery process along with a variety of mutually beneficial FRM related topics.

The workshop should be regionally located to allow interagency participation from throughout the Mississippi River Valley. The agenda for the workshop should be collaboratively developed and include a good mix of presenters from across the diverse range of federal/state partners. It is expected that in the period between this annual gathering representatives would maintain continued communication-collaboration via email/phone. Members also supported occasional webinar format meetings should events or conditions require. The primary intent of sustaining continued interagency collaboration is to facilitate strategic, integrated FRM life-cycle preparedness and mitigation actions to reduce the threat, vulnerability and consequences of flooding in the Mississippi River Valley.

An important and recurring comment during the IRTF lessons learned discussion was that the IRTF concept should serve as a model for a number of other challenging regional issues that also have shared responsibility across multiple federal and state agencies. It is expected that the local, regional, state, and Federal members of the IRTF will continue to provide safety, security, and quality-of-life measures to American citizens and industry.