

Middle Mississippi River Regional Corridor Collaborative Planning Study Missouri and Illinois

Final Report



**Prepared by the
U.S. Army Corps of Engineers
St. Louis District**

August 2008



**U.S. Army Corps
of Engineers®
St. Louis District**

Executive Summary

The Middle Mississippi River Regional Corridor (MMRRC) study was one of five federally funded watershed studies conducted in response to the 2006 Energy and Water Development Appropriations Act (PL 109-103). That legislation directed the Secretary to conduct, “at full federal expense, comprehensive analyses that examine multi-jurisdictional use and management of water resources on a watershed or regional scale.”

The objectives of the MMRRC study were to improve regional collaboration and provide the tools and products necessary to improve interagency planning. The framework of the MMRRC study focused on ecosystem restoration, natural resources management, and the interaction between the natural resources community and other communities of practice which impact, or are impacted by, natural resources planning and decision-making.

The defined MMRRC study area included the Mississippi River and its associated floodplain between the confluence with the Missouri River near St. Louis, Missouri and the confluence with the Ohio River near Cairo, Illinois. The study area included land in both Illinois and Missouri and encompassed approximately 550,000 acres.

Based on stakeholder input, the MMRRC study had three major focus areas: 1) development of a science-based tool that would aid agencies in conducting natural resource and ecosystem restoration planning; 2) development and refinement of regional interagency natural resources based goals, objectives, strategies, and targets; and 3) completion of collectively developed “on-the-ground” natural resource needs and opportunities within the region.

The study had a very high level of collaboration, with over 40 agencies and organizations actively participating. Several parts of the study were actually led by partner agencies.

Major accomplishments of the study included completion of a science-based ecosystem restoration planning report, development of new Geographic Information Systems (GIS) data layers, completion of a collaboratively developed plan focused on addressing regional issues, and ongoing development of five reach level assessments, designed to identify local natural resource needs and opportunities. All of the reports and tools are intended to guide future regional planning efforts.

The products of the study are already being used by the region. The Middle Mississippi River Partnership, which includes 20 regional agencies and organizations, used the planning outputs of the study during their recent annual meeting to help focus and prioritize their collective direction over the next 3 to 5 years.

In this study, the Corps of Engineers, which crosses jurisdictional boundaries, has a strong planning, engineering, and environmental capability, and in many cases is already seen as an overarching watershed entity, successfully filled a regional leadership or watershed liaison role. The willingness of Congress to fund this work has shown what can be accomplished when federal dollars are allowed to be used to lead holistic regional planning efforts. Because of the watershed funding, this effort has been able to create the tools, and help strengthen and develop the relationships and products, which will enable the long-term planning success of the region.

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1. Introduction

The Middle Mississippi River Regional Corridor (MMRRC) study was one of five federally funded watershed studies conducted in response to the 2006 Energy and Water Development Appropriations Act (PL 109-103). That legislation directed the Secretary to conduct, “at full federal expense, comprehensive analyses that examine multi-jurisdictional use and management of water resources on a watershed or regional scale.” As prerequisites, selected studies were to include collaboration among a broad range of stakeholders, apply systems-level approaches, cover a large geographic area, and strive to achieve multiple goals. The focus of the MMRRC study was on improving regional collaboration and providing the tools and products necessary to improve interagency planning. The framework of the MMRRC study included ecosystem restoration, natural resources management, and the interaction between the natural resources community and other communities of practice which impact, or are impacted by, natural resource planning and decision-making.

Included in this report are a brief description of the corridor, identified watershed issues, discussion of the major study products, regional use of the study outputs, study participation, and lessons learned.

2. Study Area Description

The Middle Mississippi River (MMR) region as defined in this study included the Mississippi River and its associated floodplain between the confluence of the Missouri and Mississippi Rivers near St. Louis, Missouri and the confluence of the Mississippi and Ohio Rivers near Cairo, Illinois. The MMR region included land in both Illinois and Missouri. The Mississippi River’s length from the confluence with the Missouri River to the confluence with the Ohio River is approximately 200 miles. The associated floodplain includes approximately 550,000 acres. Figure 1 provides an overlay of the project area within the bi-state region.

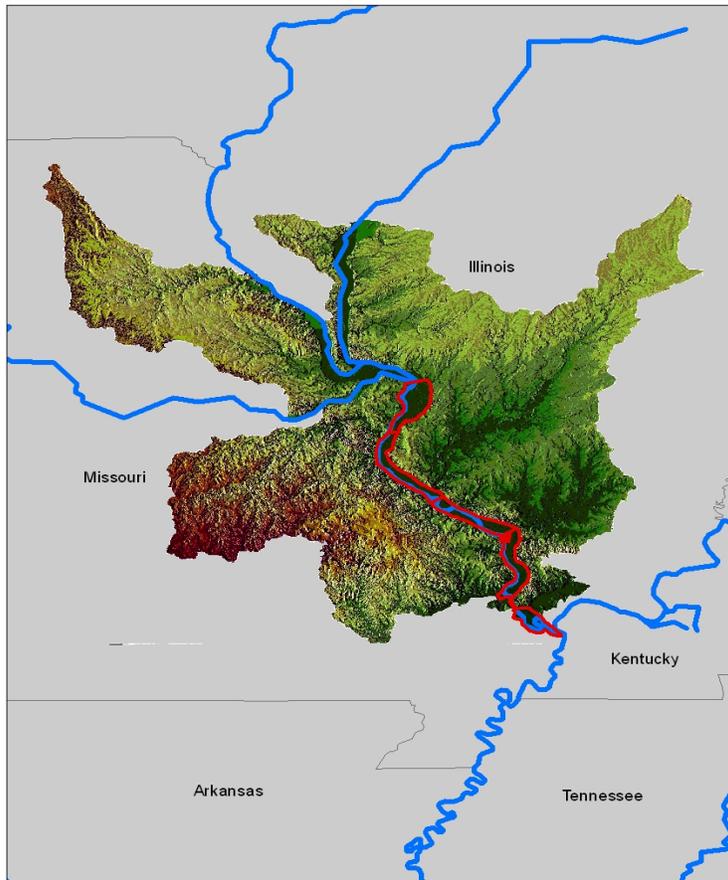


Figure 1. MMRRC study boundary. Study area is outlined in red.

3. Basin Characteristics

Most of the MMR basin is in private ownership, with only about 8% of the lands in public ownership. The MMR corridor contains a diverse combination of interests, including major metropolitan areas, a nationally significant waterway transportation system, and some of the nation's most productive agricultural ground. The corridor also serves as a major international migratory flyway for waterfowl, song birds and other non-game birds and provides critical habitat for many large river fishes. The corridor is home to seven federally threatened and endangered species. Major metropolitan areas within the basin include the cities of St. Louis, Missouri and East St. Louis, Illinois and their surrounding communities, and the cities of Cape Girardeau, Missouri, and Cairo, Illinois. Figure 2 provides an overview of the study boundary.

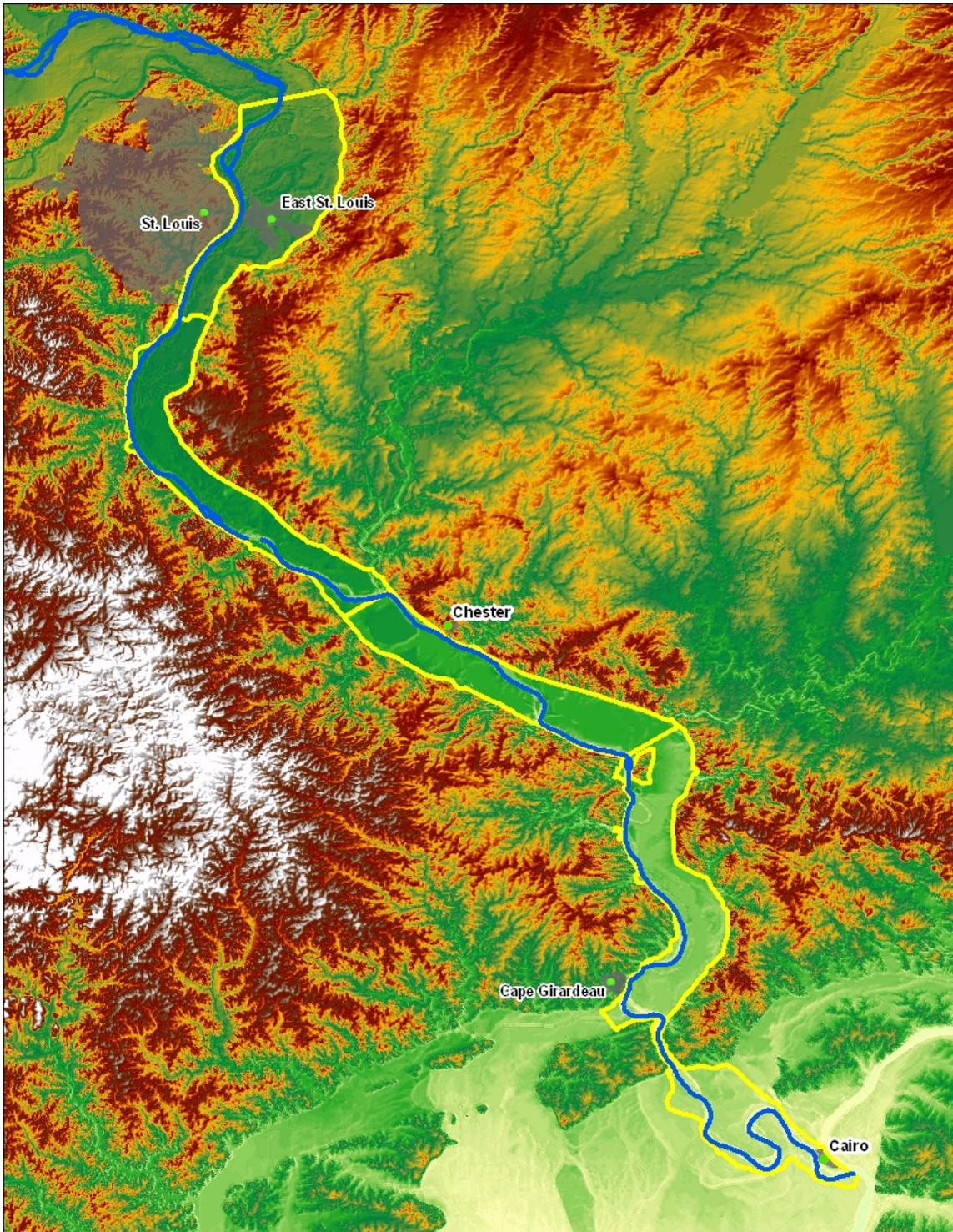


Figure 2. Middle Mississippi River Basin. MMRRC study boundary is in yellow. Major metropolitan areas are shown in gray.

4. Land Use within the Basin

Land cover in the Middle Mississippi River basin is dominated by agriculture, but also includes significant acreage in forests, developed areas, and open water (Table 1).

Table 1. 2000 Land Cover within the Middle Mississippi River Basin

Land Cover	Acres	% of Basin
Agriculture	290,160	53
Forest	89,210	17
Open Water	68,210	12
Developed	52,280	10
Wetland	21,020	4
Grasses	18,010	3
Sand-Mud	7,140	1
Total	546,030	100

Like most floodplain rivers, the Middle Mississippi River and its associated floodplain have been extensively modified for navigation, agriculture, urban development, flood control, and other human activities. Since the early 1800's the region has experienced a significant shift from a landscape dominated by forest, water, wetlands, and grasslands to one dominated by agriculture and urban development. Nearly 80% of the MMR floodplain is behind levees. The area continues to experience land use changes. Over the last twenty years there has been an increase in both wetlands and forests in the corridor. Much of this change can be attributed to land use changes as a result of the floods of 1993 and 1995 and the impacts of conservation programs. There has been a similar increase in developed land over the last twenty years. Most of these recent changes appear to have come from land use shifts away from agriculture.

5. Watershed Issues

To define the scope of this study and identify key issues, existing reports were reviewed and input was solicited from regional stakeholders. This led to

the identification of a number of important natural resource and water resource issues within the region, including:

- Loss of side channels and aquatic habitat within the Middle Mississippi River
- Lack of river connectivity to the floodplain
- Increasing demand for natural resource based recreation opportunities
- Need to assure continued agricultural viability for the region
- Loss in quantity and functionality of historically important floodplain habitat types within the region
- Regional and national importance of continuing to provide a reliable navigation system
- Availability of habitat for migratory birds within the region
- Need for strong involvement of, and engagement with, private landowners in addressing natural resource issues within the corridor
- Need for better communication and coordination between natural resource agencies and entities impacting natural resources
- Strong interagency desire for well-placed and designed ecosystem restoration projects
- Strong interest in collaborative natural resources planning



Figure 3. Representative photos of major issues and concerns within the MMRRC project area.

In 2004, a number of regional agencies with responsibility or interest in natural resource management and conservation in the MMR recognized the need for better collaboration and cooperation between groups. What resulted was the formation of the Middle Mississippi River Partnership (MMRP), a sixteen agency (since the onset of the MMRRRC work, the MMRP has grown to twenty members) coalition of state, federal and non-governmental agencies and organizations who joined together under a memorandum of understanding. The MMRP and its twenty members, which include the St. Louis District, have been major contributors and partners in the MMRRRC study. It is expected that with completion of the Corps study, many of the products and ongoing work will continue to be spearheaded by the MMRP and its partner organizations (Table 2).

Table 2.

Middle Mississippi River Partnership Organizations

U.S.D.A. Forest Service	U.S.D.A. Natural Resources Conservation Service
U.S. Fish and Wildlife Service	Wildlife Forever
The Nature Conservancy	U.S. Army Corps of Engineers
Southern Illinois University	Southwestern Illinois RC&D
U.S. Geological Survey	U.S. Environmental Protection Agency
Illinois Department of Natural Resources	Southern Illinois Community Foundation
Missouri Department of Natural Resources	The Conservation Fund
Missouri Department of Conservation	Upper Mississippi River and Great Lakes Region Joint Venture
American Land Conservancy	Illinois Forestry Development Council
Ducks Unlimited	
Illinois Society of American Foresters	

6. MMRRRC Study Focus

Upon commencement of the study, the St. Louis District conducted a series of meetings in fall of 2006 with regional stakeholders. Based on stakeholder input, three focus areas began to emerge for the study: 1) the strong desire and need for a science-based tool that would aid agencies in conducting natural resource and ecosystem restoration planning; 2) the need to collaboratively develop and/or refine regional natural resource goals, objectives, strategies, and targets; and 3) the need to collectively identify what the “on-the-ground” natural resource needs and opportunities were within

the region and begin to identify where the restoration and preservation opportunities existed. These three focus areas formed the basis of the MMRRC study. The status and results of efforts in each of the three focus areas is presented in this report.

7. Natural Resource Planning Tool

The partners on the study expressed a strong need for a science-based landscape-level planning tool to help drive future regional natural resource planning. Study partners felt that a restoration and natural resource planning tool, developed for the Middle Mississippi River corridor, was needed to help individual agencies better execute their own planning programs and dollars, better target restoration opportunities, develop smarter projects with greater chances of success, and most importantly, better leverage and focus their collective resources. Recent hydrogeomorphic studies completed for the Memphis District, Corps of Engineers (Heitmeyer et al. 2002, Heitmeyer et al. 2004) produced habitat classification and assessment tools that have proven to have direct applicability to basin-level planning and restoration. A major focus of the MMRRC study was development of a similar tool for use in the MMR corridor.

The essence of the hydrogeomorphic methodology (HGM) is the use of information and data on geomorphology, soils, topography, and hydrology to help characterize appropriate and realistic landscape level habitat conditions. As a planning tool the HGM report provides a number of benefits to assist in regional restoration planning. These include:

- Documenting the pre-European settlement ecosystem conditions of the Middle Mississippi River corridor to help establish the restoration potential for the region.
- Documenting the existing ecosystem conditions to help establish landscape and reach scale baseline conditions.
- Clearly presenting restoration potential by evaluating existing conditions and developing realistic future expectations based on the analysis of availability of the requirements needed for successful habitat restoration.

The outputs of this effort included preparation of a final report and development of new Geographic Information Systems (GIS) data layers, both of which will be used as

tools to guide future regional planning efforts. The final report, “An Evaluation of Ecosystem Restoration Options for the Middle Mississippi River Regional Corridor”, (Heitmeyer 2008) was completed in May 2008. The report and the subsequent GIS layers have been posted on the Middle Mississippi River Partnership website (www.midmiss.org).

7.1 Major Study Conclusions

Based on the conclusions of the HGM report, the MMRRC contains three distinct ecoregions. The first ecoregion, the American Bottoms, extends from the confluence of the Mississippi and Missouri rivers south to where the Kaskaskia River enters the Mississippi River floodplain near Chester, Illinois. The second ecoregion extends from the Kaskaskia River to the narrow floodplain constriction at Thebes Gap, immediately south of Cape Girardeau, Missouri. The third ecoregion extends from Thebes Gap south to the confluence of the Mississippi and Ohio rivers. The geomorphology of each ecoregion is distinctly different and greatly influenced which habitat communities historically existed. Evaluations of ecosystem conditions and restoration options are categorized by these three regions.

The report indicated there were 10 major historical vegetation communities/habitat types in the MMRRC, which included: 1) the main channel and islands of the Mississippi River and its tributaries, 2) river chutes and side channels, 3) bottomland lakes, 4) riverfront forest, 5) floodplain forest, 6) bottomland hardwood forest, 7) slope forest, 8) bottomland prairie, 9) mesic terrace prairie, and 10) savanna. Compared to the pre-settlement conditions all 10 habitat types have experienced significant declines. In the MMR corridor over 90% of the total area of prairie, savanna, and slope forest have been lost. Floodplain forest area has declined 70%, bottomland hardwood forest area has declined 65%, riverfront forest area has declined 40%, and bottomland lake area has declined over 60%. The report discusses in detail the landscape and ecological characteristics needed to successfully restore each major community, and provides direction on how and where restoration of each habitat type should and could occur in the MMRRC.

Using bottomland (wet) prairie restoration in the MMRRC as an example, according to the report, potential restoration efforts should focus on:

- areas north of Kaskaskia Island
- older Point Bar surfaces that retain topographic complexes of narrow swales and broader ridges
- elevations at least above the 2-year flood frequency zone (swales in Bottomland Prairies were in the 2-5 year flood frequency zone and higher ridges were above the 5-year flood frequency zone)
- non-clay soils on ridges and clay soils in swales
- locations with few dissecting drainages or ditches
- at least 100-acre plots and preferably at least 1/4-mile wide
- areas that can be actively managed with fire, plantings, and perhaps occasional grazing
- areas which can be owned, managed, or controlled by a conservation entity.

The report also begins to help set the framework for future efforts by establishing some general restoration guidelines and recommendations for the region. Those guidelines include:

- Protect and sustain existing floodplain areas that have plant communities similar to pre-European settlement conditions.
- Restore plant and animal communities in appropriate topographic and geomorphic landscape position related to HGM characteristics.
- Restore habitats and areas that can serve as a “core” of critical, sometimes limiting, resources that can complement and encourage restoration and management on adjacent and regional private lands.
- Restore at least some sustainable patches of habitats that have experienced significant decline such as prairie, bottomland lake, and floodplain forest.
- Expand remnant bottomland hardwood forest patches and restore natural hydrological regimes that match natural dynamics of respective bottomland hardwood communities.

- Expand and diversify riverfront forest communities to create functional corridors along the Mississippi River and include some hard mast tree species on the highest ridges and natural levee elevations.
- Reconnect select side channels and chutes along the Mississippi River.
- Create buffers of habitat complexes around floodplain wetlands, especially bottomland lakes, point bar swales, and backswamp depressions.
- Identify possibilities for restoring hydraulic connectivity between MMRRC rivers and their floodplains, especially backwater flows into sloughs, swales, abandoned channels, and backswamp depressions.

7.2 Benefit to the Region

The information in the HGM report and the GIS data provide many of the tools and much of the information needed to help natural resource planners make informed decisions in the MMRRC. At a broad landscape scale, the report identifies historic types and distributions of communities, what communities now exist, and the suitability of existing areas to restoring each community type. This regional information will be used by implementing agencies and groups to understand which communities are in greatest decline and where the opportunities are to protect and restore parts of the historic MMRRC ecosystem. At a site-specific scale, this report also provides much of the information needed to determine what communities could potentially be restored, helping agencies make informed decisions about site restoration and, when called for, make land acquisition or easement purchases consistent with the agencies' restoration or preservation goals. Included in the report is an outlined procedure, in essence a "how-to" section, to determine optimal restoration options for sites within the MMRRC.

The HGM report and the associated GIS data (Figure 4) will allow the Middle Mississippi River stakeholders to execute smarter natural resource planning and restoration. At the agency level, better planning will occur as agencies take the results of the study and apply them to their agency-specific goals and objectives, allowing individual agencies to focus their efforts toward high priority and high return outputs.

By example, the Illinois Department of Natural Resources (IDNR), as part of their 2005 Illinois Comprehensive Wildlife Conservation Plan and Strategy, identified marsh wetland to be a critical habitat within the state. Within the plan, IDNR set as a statewide 20-year goal the net increase of 20% of existing marsh wetland habitat, achieved through restoration, enhancement and management. Within the Lower Mississippi River Bottomlands Natural Division, which includes much of the Middle Mississippi River study area, the agency has set targets to increase forest cover by at least 10,800 acres, increase grassland cover by at least 10,400 acres, and increase wetlands by at least 4,000 acres. The results of the HGM work, by quantifying and identifying pre-settlement habitat types (location and extent), quantifying and identifying existing remnant habitat types, and identifying the areas where the present conditions would allow for successful habitat restoration, will allow the State of Illinois to better target and refine future restoration work and better optimize their restoration dollars, consistent with their conservation plan. It is expected that the results of the HGM work will assist many other planning agencies within the region in a similar fashion.

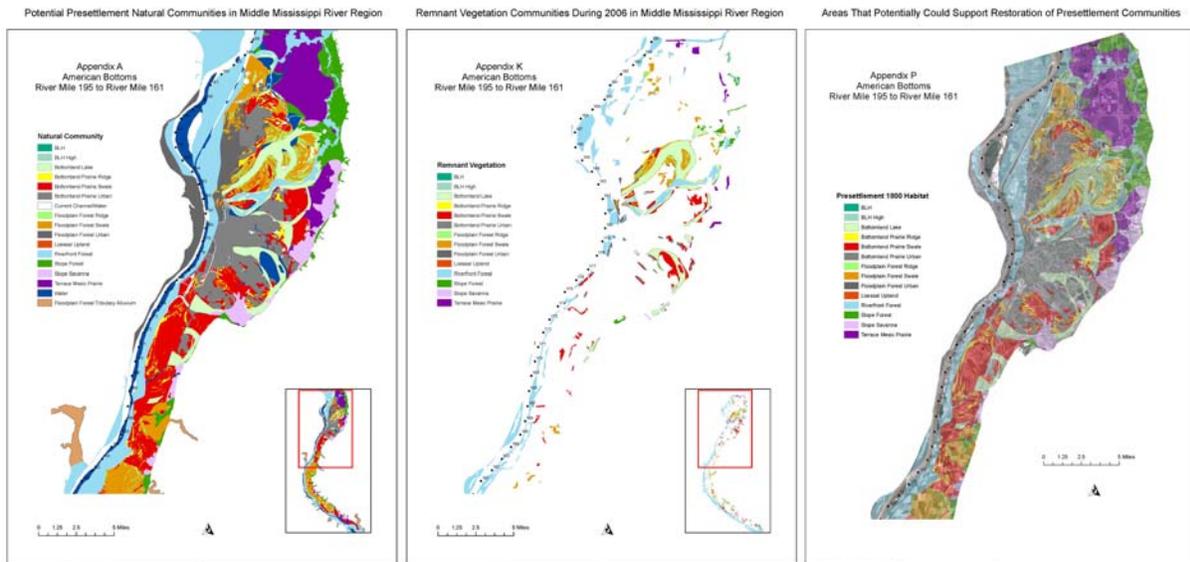


Figure 4. Presettlement conditions, existing remnant vegetation communities, and restoration potential maps of the American Bottoms region of the Middle Mississippi River. The maps and corresponding GIS data layers are products of the MMRRRC HGM work (Heitmeyer 2008).

On a regional level, the ensuing step to the results of the HGM study is the development of regional restoration and preservation targets. The HGM study provides the tools and data that will allow the region to create targets based on real world data and sound science. There is a strong interest by the stakeholders within the region to establish these regional targets. Stakeholders believe that collaboratively-developed targets will allow the region to focus and leverage their collective programs and dollars toward joint action, and also provide a benchmark against which success can be measured. This message was reinforced during the August 2008 annual meeting of the Middle Mississippi River Partnership. Many agencies within the MMRP see this as a crucial step in moving forward and have shown a strong commitment to developing regional targets based on the HGM work. Upon completion of the MMRRC study it is expected that the interagency Middle Mississippi River Partnership will continue to champion the regional targets effort and serve as the clearinghouse for measuring success toward reaching those targets.

7.3 Stakeholder Involvement

Given the geographical cross-cutting nature of this work, a cost-shared effort to complete the HGM work would have been difficult. In this instance federal funding allowed for creation of a planning tool with broad applicability and usability, which will be used at the local, state, and regional level. Given the relatively low federal investment in the HGM work (less than \$200,000) the value of the work to other agencies and groups will well exceed the initial federal investment. In addition, much of the data, input, and legwork needed for creation of the HGM report were provided by partnering agencies at no cost to the study. The Nature Conservancy, the U.S. Fish and Wildlife Service, and the Southwestern Illinois Resource Conservation and Development District all provided substantial unfunded support.

Interest in the HGM study results has been very high with regional stakeholders and potential users. Following completion of the final report, the study author, Dr. Mickey Heitmeyer, the Corps and the MMRP, conducted a series of regional outreach workshops to help agencies and other stakeholders understand the results of the study and to get the report and the data into the hands of potential users. Those meetings

were well attended with well over 100 people participating, many of whom attended several meetings. Over 25 agencies and groups participated, including regional planning groups, state and federal natural resource agencies, state departments of transportation, agencies with regulatory responsibility, and environmental groups. In discussions with workshop participants it became apparent that the tools and data created during this study will be used not only as aids for restoration and preservation planning but also to aid in other planning efforts including avoiding sensitive sites during economic development projects, developing successful mitigation sites, and in future land use planning. Both the Missouri Department of Conservation and the Illinois Department of Natural Resources have inquired into having an agency specific briefing on the HGM work.

8. Regional Goals, Objectives, and Strategy Setting

One of the most repeated themes heard during stakeholder scoping was the desire by cooperating agencies to move out of a “planning phase” and into an “action phase”. Many partners felt that one of the MMRRC study outcomes needed to be moving the region toward collective action.

The Middle Mississippi River Partnership in 2005, as part of its initial coordination plan development, prepared a set of regional goals and objectives. These goals and objectives were developed as a result of input gained from a series of public meetings held by the Partnership and by input from member agencies within the Partnership. Ultimately, goals and objectives were developed in eleven issue or concern areas:

1. Forests
2. Wetlands
3. Wildlife Habitat
4. Agricultural Production
5. Aquatic Habitat
6. Recreation
7. Floodplain Management
8. Water Quality
9. Non-native Invasive Species
10. Information and Outreach
11. Economic Impact.

Objectives were identified under each of the eleven focus areas as part of the initial MMRP planning efforts. The next step, developing strategies to implement these mutually-identified objectives, was not completed. Many of the regional stakeholders felt that the MMRRRC study was the right vehicle to help move the earlier regional efforts forward.

Upon review of the earlier work done by the MMRP, it was noted that the interactions and opportunities that existed between transportation, infrastructure, and the natural resource community had not been previously identified or addressed. Consequently a twelfth issue/concern area was added to reflect the importance of transportation (highway, rail, and waterway) in the region.

Focused, facilitated workshops on each of the twelve issue areas began in October 2007. Where possible, groups of similar issue areas (e.g. Forests, Wetlands, and Wildlife) were addressed in a single meeting. Each meeting followed a similar format. Stated objectives for each meeting were to:

- Re-affirm the earlier goals and objectives and make changes as needed
- Identify factors which could hinder the region from achieving success
- Develop strategies/actions to address each objective
- Identify applicable programs that could be used to execute each strategy/action, or identify which actions may require new programs
- Identify specific opportunities that existed for collaborative action
- Identify lead entities for certain strategies/actions as appropriate
- Develop targets or metrics to track and measure regional success, when appropriate.

The results of the workshops were consolidated, added to the earlier goals and objectives work done by the MMRP, and forwarded to the collaborating agencies and groups for review and refinement. The final plan, titled the “Middle Mississippi River Regional Plan” will allow stakeholders to focus their efforts toward actions which address their mutually-identified goals and objectives. That plan is in the process of being placed on the MMRP website (www.midmiss.org).

During the workshops it became apparent that many of the programs and authorities available through the study partners could be applied to many of the issue areas and

strategies. Subsequently, it was decided that a stand alone document needed to be developed which clearly and easily identified which programs were available to the region, which agency or group administered those programs, and the cost share requirements of the program. That document was created as part of this effort. It also will be placed on the MMRP website.

8.1 Results of the Workshops

As stated earlier, there is strong interest within the region to move into an action mode on collaborative natural resource management and ecosystem restoration. On other issues, like Agricultural Production, Floodplain Management, and Transportation, the desire was to begin to identify areas of common interest and improve communication between the natural resource community and other communities of practice like drainage and levee districts and departments of transportation. As such, the results of the regional focused meetings reflected the present disparity, or maturity, of many of the regional issues.

For highly mature natural resource issues like Aquatic Habitat and Wetlands it was apparent that many agencies had programs and plans already in place to address habitat creation, improvement, or protection. In those sessions the focus of the meeting shifted to identifying the collective actions and programs that were needed to move forward as a region. Developing collective focus areas and actions became the biggest output of those meetings. Agreeing on regional focus areas and actions is expected to allow agencies and groups to better target and leverage their collective dollars and programs.

In less mature natural resource issues, like Transportation and Agricultural Production, education and communication became the primary outputs of the meetings. In those sessions the focus was more on building relationships for future collaboration and communication rather than collective action. In many cases, agencies and entities had had only limited previous interaction with the natural resource community, often in a regulatory capacity. Through discussion it became apparent that there were many areas of common interest and overlap between groups as well as a mutual desire for improved communication and awareness. Many of the actions and strategies identified

in the meetings focused on developing mechanisms for future communication and relationship building.

8.2 Benefit to the Region

The effects of regional collaborative planning are already beginning to show results. In August 2008 the Middle Mississippi River Partnership conducted its annual meeting. A main focus of the MMRP annual meeting was to use the results of the regional planning work to help solidify direction of the Partnership over the next 3-5 years. During the MMRP meeting the collective group reviewed and prioritized strategies in each of the 12 focus areas in the regional plan. In most cases 3-5 strategies in each focus area were identified as the high priorities for the Partnership. While each of the member agencies within the MMRP still has individual agency goals and mission requirements, the larger group has now agreed on what it believes are important issues within the region and has settled on a number of strategies the Partnership believes are critical in achieving their collective vision.

8.3 Stakeholder Involvement

Like every aspect of the MMRRRC study, stakeholder involvement and interest was high. Almost 40 different groups and agencies participated in the regional planning workshops. This included many groups which traditionally have not worked together or have had only limited interaction. One of the great outcomes of this work is going to be improved interagency interaction and awareness, and consequential improvement in individual agency efficiency and effectiveness.

In another example of the commitment of the regional agencies and groups to collaborative planning, the Southwestern Illinois Resource Conservation and Development District (SWIRCD), along with the Corps, co-led the regional planning work. SWIRCD's funding to participate in this work came through a decision by the Middle Mississippi River Partnership to use privately-obtained grant funding to support the regional goals work. This is just another example of the leveraging of resources which occurred within the study, and which is expected to expand as a result of the study outputs.

9. Reach Assessments

Beginning in summer 2007, the MMRRC study conducted a series of meetings focused on natural resource planning with regional stakeholders (Figure 5). The intent of those meetings was to take a “bottom up” approach to regional planning by engaging the agencies and stakeholders at a local level. To make the effort manageable, the river and associated floodplain were divided into five 40-mile reaches (Figure 6). Meetings were conducted with local stakeholders in each reach. At each meeting the attendees were asked to identify reach-level priorities, needs, opportunities, available data, ongoing and future actions, connections with other planning efforts, potential projects, and restoration priorities. Each reach was further broken down into a number of sub-areas. These sub-areas were categorized into three major types based on defining features: protected floodplain, unprotected floodplain (including side-channels), and riverine. The opportunities and actions in each sub-area were discussed.



Figure 5. Photos of MMRRC reach assessment meetings conducted in 2007.

The reach assessment work had a strong GIS data component. GIS data layers were used to help establish and visualize existing conditions and to aid in prioritization and future project selection. GIS data layers included 1800's land cover, 2000's land cover, soil types, aquatic habitat, public lands, lands enrolled in NRCS conservation programs, soil suitability for farming, and flooding frequency.

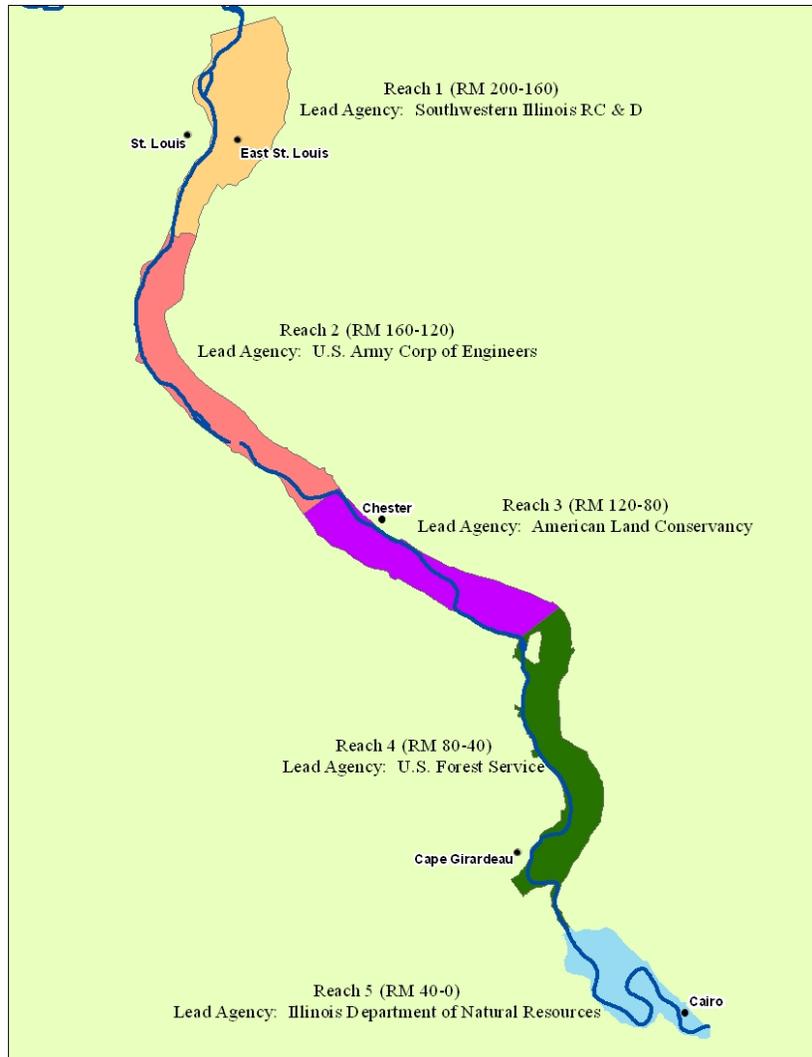


Figure 6. Reach assessment areas and associated lead agencies.

9.1 Results of the Workshops

The outputs of the meetings are being prepared as individual reach assessment reports under a larger regional Middle Mississippi River reach assessment report. Each individual reach assessment report includes a review of historic and existing conditions, planning efforts to date, important maps, an assessment and group ranking of each sub-area, a list of the most important reach opportunities and needs, and identification of some potential priority sites. An extensive data form (modified from earlier Corps work) and series of maps were created for each sub-area. The opportunities and potential actions in each sub-area were summarized in the reach assessment and each sub-area was prioritized by group based on perceived opportunity or need. Using the

input from the group meetings, the regional planning work, and the HGM planning tool, a number of high priority restoration opportunities or needs are being identified for each reach.

9.2 Benefits to the Region

The reach assessment meetings represented the first time that many of the agencies and groups from the larger region had come together to identify reach-level opportunities and needs. One of the principal outcomes of the meetings was improved interagency information exchange and communication. One of the take home lessons from the meetings was that, at the local level, most agencies and groups know their own programs, agency focus, and past planning efforts very well, but know very little about the planning efforts and programs of other agencies. As such, simple recognition of others' programs and focus is expected to allow agencies to better leverage programs and dollars behind collectively-identified reach-level priorities.

During the Reach 4 (river miles 80 to 40) meeting, several natural resource agencies and groups identified the need for more, and deeper, off-channel aquatic habitat within the reach. At the same meeting one of the local levee board members identified the ongoing issue of loss of depth and capacity of their drainage areas outside of the levee. Through continued discussion it became apparent that both sides had identified a similar need and had identified a real opportunity for future joint action, though through very different perspectives. Within the reach, this work was identified as a high priority opportunity and will likely result in a more focused meeting with interested stakeholders beginning to identify a workable solution and applicable programs and authorities. This case represented just one of many such exchanges during the reach assessment meetings.

At a larger level, the reach assessment meetings allowed the larger groups to surface and identify areas of common interest, jointly develop reach-level priorities, and begin to identify project-level opportunities for future cooperation and collaboration. Several agencies indicated during the meetings and in follow-up discussions that the results of this work, and subsequent reports, would help their agencies focus future restoration efforts.

9.3 Stakeholder Involvement

The meetings were well-attended, and included many different federal, state, and local agencies, as well as non-governmental groups and interested landowners. The diversity of the attending groups allowed for greater information exchange at each of the meetings. Over 25 agencies, groups, and private individuals participated in the reach meetings. In many cases agencies participated in all five meetings, but with different representatives attending each meeting. Often agencies and groups had more than one person in attendance at each meeting. In a testament to the commitment to this effort by other agencies, each of the reach efforts was and continues to be coordinated by a different agency or organization (Figure 6). The Illinois Department of Natural Resources, the American Land Conservancy, the U.S. Forest Service, the Southwestern Illinois Resource Conservation & Development District, and the Corps of Engineers have each assumed reach leadership responsibility, including preparation of reach assessment reports.

9.4 Reach Assessment Completion

It was anticipated that the reach assessments would be completed by the end of the MMRRC study. That work is now expected to be completed in the fall of 2008. The decision to delay the completion of the assessments was based on workload of the reach coordinators (each is working largely on a volunteer basis) and the completion of the HGM planning tool and GIS data sets. The results of the planning tool have provided valuable new information that was not available during the reach meetings. This new information has caused the region to re-evaluate previously identified reach objectives and on-the-ground opportunities in each sub-area. The result will be greater incorporation of science based planning into the reach assessments. Upon completion the reach assessments will be placed on the MMRP website.

10. The Role of the Federal Government in Regional Planning

The Federal Government and the Corps, through the MMRRC study, have been able to provide a number of services to the MMR region. These services include:

- Helping focus a broad stakeholder interest group toward common endpoints
- Re-energizing past planning efforts
- Utilizing our planning experience and expertise to help the region in development of planning products which will serve as the basis for future collaboration and action
- Improving and accelerating the process of setting regional interagency priorities
- Improving interagency relationships by helping bring diverse stakeholder groups together
- Helping improve future regional planning with the development of watershed planning tools and developing data layers which have broad application throughout the region.

Because of the watershed funding, the Corps has been able to create the tools, and help strengthen and develop the relationships and products, which will enable the long-term planning success of the region.

Considering the nature of the MMRRC work, the groups involved, and the geographic extent of the work, it is unlikely that much of this holistic work could have been accomplished without federal funding or under a traditional cost-share agreement. While parts of this effort could have been accomplished in some areas of the basin under existing planning programs, it would not have garnered the regional support, region-wide focus, or success that this study has been able to achieve. In many cases, the work completed in this study will benefit many agencies and groups across a broad spectrum. Many of these groups would not have been able to cost share a traditional Corps study or if cost shared, the focus and results would not have been comprehensive enough to benefit the broad range of users that this study does.

11. Study Team

The Corps' St. Louis District Plan Formulation branch was the lead for this study with team members from disciplines including Planning, Hydraulics, Geotechnical, Engineering, Environmental, Water Quality, Regulatory, Operations, and Public Affairs. Many federal, state, county and local entities as well as non-governmental organizations

participated and continue to participate in the study effort. Table 3 provides a list of agencies and groups who have actively participated in the study to date.

Table 3. Participating Agencies

American Bottoms Conservancy	Preston Drainage and Levee District
American Land Conservancy	Sierra Club
Confluence Greenway	Southwestern Illinois Resource and
Conservation Technologies	Conservation District
Ducks Unlimited	Southern Illinois University – Carbondale
East West Gateway Council of Governments	Southernmost Illinois Tourism Bureau
Illinois Department of Natural Resources	Union County Soil and Water Conservation
Illinois Department of Transportation	District
Illinois Forestry Development Council	University of Missouri - Columbia
Madison County Soil and Water Conservation	U.S Army Corps of Engineers
District	U.S. Environmental Protection Agency
Madison County Stormwater Office	U.S. Fish and Wildlife Service – Refuges
Memco Barge Line	U.S. Fish and Wildlife Service – Ecological
Missouri Department of Conservation	Services
Missouri Department of Natural Resources	U.S. Forest Service
Missouri Department of Transportation	U.S. Geological Survey
North Alexander Drainage and Levee District	U.S.D.A. Natural Resources Conservation
The Nature Conservancy	Service
Prairie Rivers Network	

This study was authorized at 100% federal funding. However, many parts of the study were voluntarily conducted and completed by partner agencies at their own expense. Their support was instrumental in the success of the MMRRC effort. Study partners are preparing the individual reach assessments, serving as reach coordinators in four of the five MMR reaches, co-led the regional planning efforts, and provided much of the legwork in support of the HGM report, including GIS support, and tracking down historical data and accounts.

In an attempt to better capture the input of partner agencies, contributing members were asked to provide an estimate of agency dollars contributed to the study in direct support of products or efforts (not for meeting attendance or routine agency or group

participation). Partner estimates were approximately \$184,000. Of that amount \$70,000 was support from other federal agencies, with the remaining \$114,000 coming from non-governmental organizations and local and state agencies. Of the \$114,000, \$84,000 came from the Middle Mississippi River Partnership in a decision to use privately-obtained grant funding to help support the MMRRC work. The level of support provided to the study by its partners speaks to the need and desire for this type of holistic planning, and the willingness of partners to come together to support collaborative planning, where the collective value to the region and the individual agencies is apparent. In this regard, the MMRRC study provides a model for future collaborative planning work.

12. Observations and Lessons Learned

Each of the five watershed studies was considered a pilot effort. As such, documenting the lessons learned was a major outcome of each study. In the case of the MMRRC study, the Corps focus was on helping facilitate collaborative planning within the MMR and helping develop the tools and products necessary to allow the collective group to move forward together. Given that context, a summary of lessons learned and observations from the MMRRC study is included below.

12.1 Collaboration

Gauged by the external interest in the MMRRC study and the amount of work and responsibility voluntarily completed by other agencies and organizations, it is obvious that within the MMR region there is a strong desire for, and willingness to support, collaborative planning efforts. The formation of the Middle Mississippi River Partnership indicates the commitment of agencies and groups to work together on regional issues. While many agencies will use the planning products of this study, the larger MMRP will be the entity which will take responsibility for continuing forward on many of the study's outcomes.

12.2 Communication

Communication within the region is spotty. Between natural resource agencies and organizations communication at a policy level is very good. What appears to be lacking is better communication or education among agencies between the policy and local levels. As indicated earlier, it became obvious that agency personnel at the local level knew their own programs and authorities very well, but did not know the programs and authorities of other agencies nearly as well. Better understanding and communication at the local level will provide for better leveraging of resources, less redundancy, and improved efficiency.

In the short term it is hard to tangibly measure the success of the MMRRC study in improving communication and awareness within the region, but based on stakeholder feedback it is improving. Within the Corps, it is apparent through increased inquiries by stakeholders about Corps programs and authorities, and increased requests to participate in other agency and group led planning meetings. Working together toward regional goals, working together on the HGM planning tool, and coming together for the reach level meetings all appear to have helped build and strengthen relationships, improve awareness, and improve communication in the region.

Improved awareness and a regional focused study also appear to have helped spur increased communication between different communities. The diverse participation and excellent interactions which occurred in the reach assessment and the regional planning meetings have helped regional entities realize the need for more direct communication between groups. The MMRP has taken the lead on this and is actively working to set up follow-on meetings between the natural resource community and drainage and levee districts within the region, state departments of transportation, and with rail interests.

12.3 The Role of the Federal Government

With this study, the Corps of Engineers has been able to fill a leadership role within the region. Interest in collaboration has always been strong in the region but individual agencies have always been hampered by agency boundaries, mission specific focus, and a lack of funding to support or lead collaborative efforts. In this study, the Corps of Engineers, which crosses jurisdictional boundaries, has a strong planning, engineering,

and environmental capability, and in many cases is already seen as an overarching watershed entity, has successfully filled the role of watershed liaison or regional leader. The willingness of Congress to fund this work has shown what can be accomplished when federal dollars are allowed to be used to lead holistic regional planning efforts. Based on this study, there appears to be great value (though difficult to measure) in the federal government serving in, and funding, regional leadership and liaison roles.

12.4 Stakeholder Feedback

During the recent MMRP annual meeting the Corps actively solicited study feedback from the attending agencies and organizations. This group represented many, but not all, of the agencies and groups that participated in the study. Their insight is a critical piece in the Corps' own assessment of the value and usefulness of the study products, our role in this study, and the Corps' role in future studies of this type. That feedback, summarized below, includes comments on each of the three major focus areas and the overall study.

Regional Planning

- Information from the planning effort will serve as the basis of future planning efforts in the corridor.
- The six workgroups had excellent discussion and gained input from varied and diverse organizations and individuals.
- The process of expanding the strategies and actions in the Regional Plan was a collaborative process involving numerous organizations and disciplines. The meetings resulted in meaningful and productive discussions, interactions, and outcomes. Even though there was diverse representation, there remains a need to actively encourage even greater non-traditional stakeholder involvement in the process. The MMRP will use the efforts initiated by the Corps to expand future stakeholder participation.

Hydrogeomorphic Methodology Planning Tool (HGM)

- The HGM report was well developed and contained excellent information for addressing restoration needs in the corridor.
- The outreach meetings on HGM that were held in each of the five reaches provided a tremendous opportunity to make potential users aware of the study and how it could be used in addressing restoration planning needs.
- The HGM results will allow Partners to strategically identify priority areas in each reach and to also help develop defensible science based numeric goals for the Regional Plan. Information gained from the HGM efforts will help focus future land protection efforts throughout the Middle Mississippi River Corridor.

Reach Assessments

- Assessments brought diverse people and organizations together to address issues in each reach.
- The meeting forums for each reach were structured to encourage involvement and diverse input.
- The Corps' staff kept the reach assessments on track by managing a complex process involving multiple issues and varied programs and activities.
- New entities and organizations were brought to the table to be involved in the planning process.
- The Corps brought the ability to integrate GIS and other specific disciplines into the planning process.
- The Corps actively encouraged the planning process to be Partnership led, with the Corps providing background support, thereby enhancing local involvement and the Partnership role.
- Each of the five reaches was lead by a different agency within the Partnership. The Corps was responsive to the Reach Coordinators and strived to meet their needs in the process.
- Partners contributed significant time and resources to the planning effort using their own financial resources and staff because they believed in the process and saw benefits from that involvement.

Additional Comments and Suggestions

- Creation of numeric goals was good for some issues, but numeric goals did not fit all the resource issues or goals in the Regional Plan. Also, in hindsight, some of the goals were developed prematurely. Completion of the HGM work and the reach assessments will allow for development of better, and more defensible, numeric goals.
- It would have been good to be able to provide some Corps planning funds to some of the state agencies and NGOs. This was not allowed by the program guidance. It was good that many entities dedicated their own funds and staff to the planning process because they believed in the effort, but more flexibility in the way the funds can be used would be desirable in the future.
- There could have been broader input into the water quality issue to determine more comprehensive goals and objectives for the plan. The water quality agencies were involved, but analysis of the relationship of land treatment to water quality improvement was not possible within the scope of timeframe of the project.
- Working within a tight two year time frame caused the planning process to be modified several times due to an evolving understanding of partner and stakeholder needs. Having a more systemic planning process at the beginning of the planning effort would have been desirable (having the three major products sequentially, rather than simultaneously), but was not possible given the time constraints.
- The Partners understood that collaborative planning may not always proceed as one entity envisions that it should. With 20 entities involved, the final documents, outcomes, goals, etc. must be reflective of a consensus of those entities involved in the planning process.
- With completion of the HGM work, identification of natural resource needs and potential future restoration projects can now be based on historical and current land cover information. This will allow the partners to use their authorities to build upon and expand a holistic “complex” suite of alternatives that all involved can support and address.

- The involvement of the Corps was very instrumental in moving the MMRP and the region forward in addressing resource needs in the corridor. There is a need for continued Corps engagement with the MMRP in the future outside the role of collaborative planning.
- The process used to complete this study is not part of the Corps' traditional planning process. We believe the process used in this study was invaluable and that the study would not have achieved the same level of success under the traditional planning process, given the large number of stakeholders involved.

12.5 Study Expectations and Length

The need to set realistic expectations, both internally and externally, became very apparent during the study. Collaborative planning by its very nature involves bringing together many diverse agencies and groups. Inherent to successful planning needs to be a collective “buy-in” and understanding of the larger group before true progress can be made. Consequently, collaborative planning tends to move slower than traditional planning efforts with fewer partners. This study was able to make excellent progress because many of the agencies and organizations, through the MMRP, already understood and had begun collaborative planning prior to onset of the study. Having an organization like the MMRP already in place was central to the success of the study.

All five watershed studies were on two-year time frames. In the case of the MMRRRC study, that meant starting all three focus efforts in tandem. As mentioned above, it would have been preferable to have started those efforts sequentially rather than simultaneously. In the case of this study, the science based results of the HGM planning tool will help establish both regional planning goals and targets and also help establish reach level opportunities and needs. Both of those efforts are being reworked now to reflect the better understanding of the needs and opportunities of the region provided by the HGM planning tool. Starting all three efforts at the same time also made it more difficult for the stakeholders to clearly see how all three parts were woven together. A more sequential approach, and a longer planning timeframe, would have been beneficial.

Setting internal expectations was also important. Initially there was extensive internal discussion about how broad the study should be. Ultimately, given the study length, it was decided that to be successful the study needed to focus on natural resource planning and those agencies, organizations and groups which impacted, or were impacted by, natural resource planning and decision making, to include agriculture interests, levee districts, transportation, regulatory agencies, and tourism. Had the study been much broader than that, it would have been difficult to realize the tangible successes this study was able to achieve.

12.6 Federal Involvement after the Study

The intention of this study was to help the region develop the tools and collective planning products necessary to move forward after the study without continued extensive federal involvement. It is apparent, though, that there is a continued small scale funding need and a role for the Corps to continue to provide technical and planning support after the study ends.

The results of collaborative planning are hard to measure over the short term. Often the real successes occur over the longer term as agencies and groups use the planning tools and outputs to move into action. Because of the experimental nature of the five pilot watershed studies, the Corps should complete a collective re-evaluation of the longer term (3 years later?) success of the five efforts.

13. Regional Collaboration after the Study

The MMRRRC study officially concluded in August 2008. Many of the initial products are complete, including the HGM planning tool. Other products and outcomes of this study, like the regional goals work, and the programs and authority matrix, are living documents and work on those is expected to continue through the MMRP and study stakeholders after conclusion of the Corps study. Work on completing and compiling the reach assessment reports will need to extend beyond the official study end. That work will be completed jointly between the five reach coordinators with assistance from the Corps.

The Middle Mississippi River Partnership has shown the commitment to continuing to move forward with the progress made during this study. The MMRP has already begun to identify collective priorities in each of the 12 focus areas. In addition, the MMRP has already expressed strong interest in developing sound numeric targets within the regional plan, using the information from the HGM planning tool. Further, it is expected that individual agencies, as they better understand their role within the collaborative process, will help move specific initiatives and strategies forward.

There has been concern expressed by the MMRP and other stakeholders about the potential for a lack of continued Corps involvement upon conclusion of the study. The Corps has agreed to explore funding options to continue to provide some limited support to the region and the collaborative planning work and to ensure that they remain strong partners within the MMRP after the conclusion of the study. On the larger scale, development of a jointly funded federal liaison role or coordinator role amongst the major federal agencies in the MMR region would help sustain the momentum of the MMRR study and the Middle Mississippi River Partnership.

14. Acknowledgements

The effort of many agencies, groups, and individuals were involved in making the MMRR study a success. Several individuals provided significant support, including Steve Black and Dave Eustis (Southwestern Illinois RC&D), Dan Woolard (Illinois Department of Natural Resources), Jenny Frazier and Elisa Royce (American Land Conservancy), Steve Widowski (U.S. Forest Service), Robert Cail and Karen Westphall (U.S. Fish and Wildlife Service), Janet Sternburg (Missouri Department of Conservation), Jenny Reiman (East-West Gateway Council of Governments), Todd Strole (The Nature Conservancy) and Charlie Hanneken (Corps of Engineers - St. Louis).

15. References

Heitmeyer, M.E. 2008. An evaluation of ecosystem restoration options for the Middle Mississippi River Regional Corridor. Greenbrier Wetland Services Report 08-02, Advance, MO.

Heitmeyer, M.E., B. Ederington, and L.H. Fredrickson. 2004. Bayou Meto Wildlife Management Area - wildlife management plan. Special Publication #7, Prepared for U.S. Army Corps of Engineers Memphis District, Gaylord Memorial Laboratory, Univ. of Missouri-Columbia, Puxico, MO.

Heitmeyer, M.E., L.H. Fredrickson, B. Ederington and S.L. King. 2002. An evaluation of ecosystem restoration options for the Bayou Meto Basin of Arkansas. Special Publication #5, Prepared for U.S. Army Corps of Engineers Memphis District, Gaylord Memorial Laboratory, Univ. of Missouri-Columbia, Puxico, MO.

16. Stakeholder Letters



MISSOURI DEPARTMENT OF CONSERVATION

Headquarters

2901 West Truman Boulevard, P.O. Box 180, Jefferson City, Missouri 65102-0180
Telephone: (573) 751-4115 ▲ Missouri Relay Center: 1-800-735-2966 (TTY)

JOHN D. HOSKINS, Director

August 25, 2008

Colonel Thomas E. O'Hara, Jr.
US Army Corps of Engineers
1222 Spruce Street
St. Louis, Missouri 63103

Dear Colonel O'Hara:

On behalf of the Middle Mississippi River Partnership, I wish to commend you and your staff on the Middle Mississippi River Corridor Study (Study). Our Partnership was very involved with this effort and we appreciate the dedication and support provided by the Corps' staff over the past two years.

The products from this collaborative planning project, and the increased coordination and understanding of stakeholder issues resulting from the planning effort, will be invaluable in helping the Partnership achieve its vision for the river corridor. We are now poised to move forward with implementing the objectives identified in the Study, and working collaboratively with river stakeholders. Since this Study was part of a pilot study to examine the benefits of watershed planning, we want to share our thoughts and experiences with you in regard to its completion.

Our Partnership was able to make significant progress in development of plans to address the natural resources in the corridor through this project. The Regional Plan and the Reach Assessments will provide a framework for all the Partners to use in helping to focus their programs and activities to meet the identified natural resource goals. The process also allowed the Partnership to bring in additional groups and stakeholders in development of the strategies and actions that are contained in these plans. New entities were also added to the Memorandum of Understanding increasing the membership from 16 to 20 Partners.

Attached is a listing of the many positive results that occurred from our involvement in the Corps' planning effort. We offer these to help share the successes with other future potential planning projects. We also offer a few "lessons learned" that can help to shape future efforts and make them even more effective. Our Partnership offered these results and suggestions at our summer meeting on August 13, 2008 in Chester.

We want to especially thank Brian Johnson and Deanne Strauser for their leadership and support throughout this planning process. Their dedication, guidance, and

COMMISSION

DON R. JOHNSON
Festus

CHIP McGEEHAN
Marshfield

LOWELL MOHLER
Jefferson City

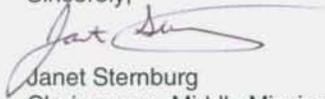
BECKY L. PLATTNER
Grand Pass

August 25, 2008
Colonel O'Hara, Jr.
Page 2

coordination skills kept the process on track and provided a forum for meaningful input from the numerous Partners and other entities.

We believe these collaborative planning efforts are worthwhile undertakings and encourage the Corps to consider expanding watershed planning efforts. We look forward to continuing our relationship with the Corps and to using the plans and information created through this collaborative effort as we move forward with addressing the natural resources in the Middle Mississippi River corridor.

Sincerely,



Janet Sternburg
Chairperson, Middle Mississippi
River Partnership

Attachment
Comments and Suggestions - USACE Collaborative Planning Project
Middle Mississippi River Partnership (MMRP)

Reach Assessments

- Assessments brought diverse people and organizations together to address issues in each reach.
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- The Corps actively encouraged the planning process to be Partnership led, with the Corps providing background support, thereby enhancing local involvement and the Partnership role.
- Each of the five reaches was lead by a different agency within the Partnership. The Corps was responsive to the Reach Coordinators and strived to meet their needs in the process.
- Partners contributed significant time and resources to the planning effort using their own financial resources and staff because they believed in the process and saw benefits from that involvement.

Regional Plan

- Information from the planning effort will serve as the basis of future planning efforts in the corridor.
- The six workgroups had excellent discussions and gained input from varied and diverse organizations and individuals.
- The process of expanding the strategies and actions in the Regional Plan was a collaborative process involving numerous organizations and disciplines. The meetings resulted in meaningful and productive discussions, interactions, and outcomes. Even though there was diverse representation, there remains a need to actively encourage even greater non-traditional stakeholders involvement in the process. The MMRP will use the efforts initiated by the USACE to expand future stakeholder participation.

Hydrogeomorphic Methodology Planning Tool (HGM)

- The HGM report was well developed and contained excellent information for addressing restoration needs in the corridor.
- The outreach meetings on HGM that were held in each of the five reaches provided a tremendous opportunity to make potential users aware of the study and how it could be used in addressing restoration planning.
- The HGM results will allow Partners to strategically identify priority areas in each Reach and to also help develop defensible science based numeric goals for the Regional Plan.

Information gained from the HGM efforts will help to focus future land protection efforts throughout the Middle Miss River corridor.

- LiDAR information would further help refine the initial HGM. Acquisition of this data should be considered for this and future watershed planning efforts.

Additional Comments and Suggestions

- Creation of numeric goals was good for some issues, but numeric goals did not fit all the resource issues or goals in the Regional Plan. Also, in hindsight, some of the goals were developed prematurely. Completion of the HGM work and the reach assessments will allow for development of better, and more defensible, numeric goals.
- It would have been good to be able to provide some Corps' planning funds to some of the state agencies and NGOs. This was not allowed by the program guidance. It was good that many entities dedicated their own funds and staff to the planning process because they believed in the effort, but more flexibility in the way the funds can be used would be desirable in the future.
- There could have been broader input into the water quality issue to determine more comprehensive goals and objectives for the plan. The water quality agencies were involved, but analysis of the relationship of land treatment to water quality improvement was not possible within the timeframe of the project.
- Working within a tight two year time frame caused the planning process to be modified several times due to an evolving understanding of partner and stakeholder needs. Having a more systemic planning process at the beginning of the planning effort would have been desirable (having the three major products sequentially, rather than simultaneously), but was not possible given the time constraints.
- The Partners understood that collaborative planning may not always proceed as one entity envisions that it should. With 20 entities involved, the final documents, outcomes, goals, etc. must be reflective of a consensus of those entities involved in the planning process.
- With the completion of the HGM, identification of natural resource needs and potential future restoration projects can now be based on historical and current land cover information. This will allow the Partners to use their authorities to build upon and expand a holistic "complex" suite of alternatives that all involved can support and address.
- The involvement of the Corps was very instrumental in moving the MMRP, and the region forward in addressing resource needs in the corridor. There is a need for continued Corps engagement with the MMRP, outside of the role of collaborative planning.
- The process used to complete this study is not part of the Corps' traditional planning process. We believe the process used in this study was invaluable and that the study would not have achieved the same level of success under the traditional planning process, given the large number of stakeholders involved.

Col Lewis F. Setliff, III
Department of the Army
St. Louis District, Corps of Engineers
1222 Spruce Street
St. Louis, MO 63103-2833

The primary focus of The Nature Conservancy's work on the Upper Mississippi River (UMR) is to conserve freshwater biodiversity in the basin. There is good reason for this. The freshwater habitats in the UMR basin support 25 percent of North America's fish species and provide a vital migration corridor for 40 percent of the continent's waterfowl and 60 percent of its bird species. A diversity of plants, invertebrates, amphibians, reptiles, and mammals also rely upon the basin's freshwater ecosystems, including freshwater mussels, a number of which are endangered.

When working in large, complex ecological systems, the challenge for the conservation community is to direct limited resources effectively to protect specific sites in a manner that conserves important areas of biodiversity and the larger network of ecosystems that connect and sustain those areas. Achieving this requires the Conservancy and others to develop strategies that address the ecological integrity of this freshwater network and the threats that currently stress it and its biodiversity at multiple scales. These are the reasons the Conservancy has developed its UMR Program and is working across state boundaries to conserve freshwater biodiversity in the UMR basin.

The Middle Mississippi River, 195 river miles, from the confluence of the Missouri River to the confluence of the Ohio River has been significantly altered through an extensive network of ditches, drain tiles and levees. Nearly three quarters of the original prairie, bottomland forest, lakes and wetlands within this region have been separated from the river and converted for agricultural use. Large landscape scale conservation efforts such as this are beyond the scope of any single organization or agency. Recognizing this, twenty state and federal agencies and non-profit organizations have formed the Middle Mississippi River Partnership (MMRP). The vision of the MMRP is to develop a network of diverse and sustainable natural resources on public and private lands in the Middle Mississippi River corridor that adequately supports fish and wildlife habitat and provides conservation benefits compatible with a variety of other uses, including agriculture, tourism, recreation and the navigation industry. Despite the development of a "Coordination Plan" in 2005, the partnership needed to further develop opportunities for collaborative planning with other regional stakeholders groups, (e.g. transportation, agriculture, and recreation), to identify restoration priorities, leverage our collective programs, and develop a truly regional implementation strategy. The "Middle Mississippi Regional Corridor Study", funded through the pilot Comprehensive Watershed Planning program within the Corps of Engineers, has facilitated these much needed steps.

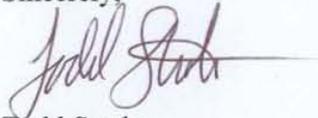
The humble beginnings of the MMRP started when concerned conservation organizations and agencies realized that we needed a collaborative approach that involved a diverse partnership in order to achieve the level of conservation success needed to make a true difference. Undoubtedly, this situation occurs all over the county in a variety of settings with diverse

environmental issues. However, a common need throughout is for large scale planning with the funding, expertise, and an organizational structure to handle the administration and facilitation of that effort. Although the Middle Mississippi River was fortunate to have an established organization like the MMRP, the USACE funding through the pilot Comprehensive Watershed Planning program allowed the region to advance multipurpose, collaborative planning in a meaningful way.

In addition to the advancements in planning, the region is already seeing benefits coming from the hydro-geomorphic study of the Middle Mississippi River completed as part of the study. The document is an extremely comprehensive evaluation and mapping of the environmental factors that lead to natural community development in the floodplain. The document and subsequent GIS data layers will be valuable for years in the future as the MMRP and its individual members set priorities for, and restore, aquatic and floodplain lands in this region. This document will also be useful to those in regional economic development, planning, and regulatory roles as plans are made that avoid and mitigate impacts from development projects in the floodplain. Planners will be able to ensure that mitigation projects are sited appropriately as well as avoid known locations of remnant native communities. Together, the Corps led ecosystem evaluation study outputs and the collaborative planning this is now occurring, are helping ensure the long term sustainable use of the Middle Mississippi River Corridor.

The partners of the MMRP will be able to build upon this foundation and leverage additional conservation dollars to further our efforts. As a federal agency organized along watershed boundaries, the Corps is uniquely structured to facilitate and lead this type of watershed planning. Additionally, while the focal point for the Corps may be on the river, the river is clearly the product of its watershed and floodplain. Therefore, this is a natural progression for the Corps to coordinate regional watershed efforts in this context. As a partner that has gained greatly from the collaboration and outputs that have come from the Middle Mississippi River Corridor Study outputs, I would like to personally thank you for your efforts. Based on the success of the Middle Mississippi River Regional Corridor study, I strongly encourage the Corps and the St. Louis District to continue to pursue similar opportunities throughout the country. As demonstrated by the Middle Mississippi study, the Corps is well suited to provide planning and technical expertise and leading interagency watershed planning.

Sincerely,



Todd Strole
Floodplain Initiative Director
Upper Mississippi River Program
The Nature Conservancy



SOUTHWESTERN ILLINOIS RC&D, INC.

June 9, 2008

Colonel Lewis F. Setliff, III
Commander, St. Louis District
US Army Corps of Engineers
1222 Spruce Street
St. Louis, Missouri 63103

Dear Colonel Setliff:

On behalf of the Southwestern Illinois RC&D, Inc. I would like to express our appreciation and thanks to the COE for the assistance you have provided to the Middle Mississippi River Partnership's (MMRP) regional planning effort over the past two years. The collaborative planning project that was approved for the MMRP area has enabled the partnership expand the focus of the Coordination Plan that was developed in 2005 and to reach out to additional stakeholders in the corridor who had not been as involved in previous planning efforts.

Through the collaborative planning efforts the MMRP has updated their regional plan to include additional issues and strategies to address the natural resources in the region. This has allowed the partnership to reach out to not only new Partners, but to the many stakeholders in the region that can benefit from the attainment of the goals in the plan. The goals and strategies that were developed will enable the Partners to focus their efforts on priority areas and issues, leverage program and other funds, combine activities and efforts, and provide a more coordinated approach to resource management in the corridor.

The products produced from this effort will go a long way in helping decision-makers and landowners to manage and protect the natural resources in the area. The HGM model that was applied to the region can provide a science based approach to restoration of desired vegetation types and wildlife habitat. The regional plan for the Partnership will help to focus resources to major issues and strategies. The Reach Assessments will provide more specific information to the project level and will serve to help identify and coordinate local projects and activities. All of these tools will help to get more conservation projects on the land to provide the economic, environmental, and social values that are important to the region.

We would encourage the COE to continue to be involved in the collaborative planning effort in other watersheds and river basins in this area and the nation. Your involvement has allowed the RC&D and the Partnership to move forward in protecting natural resources in the area. Our RC&D willingly committed time and resources to this effort knowing the overall planning process would be beneficial to all our interests.

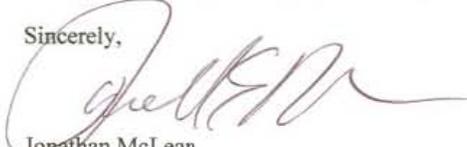
BOND, CLINTON, MADISON, MONROE, RANDOLPH, ST. CLAIR, & WASHINGTON
406 EAST MAIN STREET MASCOUTAH ILLINOIS 62258 P: 618.566.4451 F: 618.566.4452 E: swrtd@swrtd.org

Another important part of this effort is that the processes developed during the planning stage will be useful over the next several years as the Partnership continues to address the identified natural resource and other needs. This effort will be dynamic and the plans developed will be utilized and revised as we move forward. The most important part of the collaborative effort is that it has created data, information, relationships, and scientific processes that will be used in future implementation and planning.

Our role at the RC&D has been to provide the overall coordination assistance to the MMRP over the past several years. The COE planning efforts has helped facilitate our role and enabled us to better serve the Partners. We are currently looking at methods to continue that assistance in the future as funding becomes available.

Thank you for the opportunity to express our thanks and to add this support to the collaborative planning effort. It has been a great success and has set the stage for completion of many future projects along the Middle Mississippi River corridor.

Sincerely,



Jonathan McLean
President



June 10, 2008

MISSOURI DEPARTMENT OF CONSERVATION

Headquarters

2901 West Truman Boulevard, P.O. Box 180, Jefferson City, Missouri 65102-0180
Telephone: (573) 731-4115 ▲ Missouri Relay Center: 1-800-735-2966 (TTY)

JOHN D. HOSKINS, Director

Col Lewis F. Setliff, III
Department of the Army
St. Louis District, Corps of Engineers
1222 Spruce Street
St. Louis, MO 63103-2833

Dear Colonel Setliff:

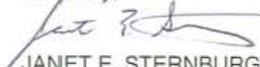
As you are aware, the Middle Mississippi River Partnership (Partnership) has been in existence for several years. One effort that has greatly helped energize the Partnership was the funding and implementation of the Middle Mississippi River Regional Corridor Study (Study) by your agency. The Missouri Department of Conservation (Department) is grateful for the funding, initiative and effort made by your staff in obtaining and providing support to further refine goals and objectives for the corridor, and we thank you for your District's efforts.

The Department has benefited from the Study, not only in the products produced, but also in the increased level of collaborative efforts of the partners. The number and diversity of state, federal and non-governmental Partnership members make the initiative strong. However, this diversity can also make it difficult to achieve success in collaborative efforts. Organizational missions do not always coincide and these broad partnership efforts can often stall, unless there is an effort made to help focus the members. As we participated in the planning efforts of the Study, I believe communication links and collaborative opportunities among regional stakeholders have only grown. This Study and members of your staff, especially Mr. Brian Johnson, Ms. Deanne Strauser and Mr. Charlie Hanneken, have helped enhance and energize the members of the Partnership and this will have a lasting impact on its efforts.

We are also very pleased with the hydrogeomorphic (HGM) study produced for the Middle Mississippi River corridor. This information will be invaluable to the state of Missouri as we move forward to collaboratively identify and implement projects within the state. The information will also benefit the entire corridor by providing a better understanding of the region's habitat needs and restoration potential for agencies and organizations both inside and outside of the Partnership, allowing users to make more informed decisions on restoration projects. In addition, the knowledge gained through HGM study will greatly assist in planning efforts under the Navigation and Ecosystem Sustainability Program that are soon to begin in this portion of the river.

We look forward to continued collaborative efforts with the U.S. Army Corps of Engineers on the Mississippi River and in other areas of Missouri.

Sincerely,


JANET E. STERNBURG
POLICY COORDINATOR

COMMISSION

DON R. JOHNSON
Festus

CHIP MCGEEHAN
Marshfield

LOWELL MOHLER
Jefferson City

BECKY L. PLATTNER
Grand Pass