

Middle Mississippi River Regional Plan

Introduction

The Middle Mississippi River Regional Plan is the result of a joint effort between the Middle Mississippi River Partnership (MMRP), the U.S. Army Corps of Engineers, and many other regional agencies and groups to help develop specific strategies and actions to address many of the resource issues and concerns within the Middle Mississippi River Corridor. The Regional Plan is one of the three major focus areas of a Corps funded study designed to improve regional collaboration within the Middle Mississippi River Corridor. The other major focus areas included the inter-agency development of specific reach assessments for each of five stakeholder determined reaches of the Middle Mississippi River and the development of a science based planning tool (hydro-geomorphic study) to help regional stakeholders better identify site specific restoration potential and opportunities in the corridor. The combination of these efforts will help all stakeholders in the region to conduct better planning.

This Regional Plan used the previous work of the Middle Mississippi River Partnership as a starting point. In 2005 the MMRP completed a jointly developed Coordination Plan. As part of that plan, the MMRP identified a series of resource concerns and issues within the MMR corridor, and began to develop a series of goals and objectives to address these issues. Using that work as a backdrop, this effort re-examined and expanded upon the originally identified resource issues and concerns. It also further created, refined and established goals and objectives for each concern/issue area, developed specific regional strategies which would lead to attainment of the goals and objectives, and where possible attempted to establish jointly developed desired outcomes. In addition, specific efforts were focused on developing a comprehensive list of available programs and initiatives which could individually or jointly be applied to help further attainment of the goals.

Land Use within the Corridor

Land use 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

Class	Acres	Percent
Agriculture	293,100.3	53.14%
Developed	55,675.03	10.09%
Forest	88,975.64	16.13%
Grass/Forbs	16,684.51	3.02%
Sand/Mud	6,656.22	1.21%
Unknown	4,895.1	0.89%
Water	64,846.52	11.76%
Wetland	20,723.49	3.76%
Total	551,556.8	100.00%

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.

Background

The Middle Mississippi River Partnership Coordination Plan was originally developed in 2005 to begin to focus the programs and activities of the partners toward common goals and objectives relating to natural resource issues in the floodplain corridor between St. Louis, Missouri and Cairo, Illinois. The Coordination Plan contained eleven resource concerns and issues that were identified as applicable to the corridor. Goals and objectives were developed for each concern or issue. There was not an attempt at that time to develop more specific strategies or long-term measurable targets within the Coordination Plan. The purpose of the plan was to help guide future agency/organization efforts and serve as a source of resource data for decision making.

The Corps of Engineers Middle Mississippi River Regional Collaborative Planning Study has allowed the region to further and strengthen the collaborative planning process started with the MMRP Coordination Plan. Using the earlier Coordination Plan efforts as a starting point, the regional stakeholders have worked to refine the 2005 report by re-examining and expanding the identified goals and objectives, develop specific strategies to address those objectives, and where applicable develop numeric targets, etc. To accomplish this task, six inter-agency and inter-organizational workgroups comprised of regional stakeholders were organized to provide input into each resource issue and develop more specific strategies that could lead to attaining the goals and objectives in the plan. The six work groups were:

- Forests, Wetlands, and Wildlife Habitat
- Agricultural Production, Floodplain Management, and Economic Impact
- Aquatics and Water Quality
- Recreation
- Transportation
- Information and Outreach

During the re-examination process, it became clear that an important component of regional planning and collaboration, the impacts and influence of transportation on the region, had not been well considered. Recognizing that shortcoming, a new

transportation group was formed which included highway, railroad, and barge interests. Participation in each of the meetings was intentionally diverse including many of the agencies and groups that were part of the MMRP, but also many groups, agencies, and individuals who were stakeholders in the region, but not associated with the MMRP. These groups met in facilitated sessions in the fall and winter of 2007 and early 2008 to provide regional input into this plan. It is expected that many of these participating agencies and individuals will continue to build upon the success of the workgroups and help drive the outputs and projects which emerge from the planning efforts. As a side benefit, as more agencies and groups become aware of the collaborative nature, cooperative spirit, and joint planning efforts underway with the MMRP, it is hoped that previously uninvolved agencies and groups will become active participants and contributors beyond completion of the Corps study. This plan recognizes that the MMRP will be a driving force in implementation of many of the identified goals, objectives, and strategies. However, without full collaboration and involvement of all the stakeholders within the Middle Mississippi River corridor, many of the identified outcomes will be difficult, if not impossible, to attain.

This plan is a product of input from many varied groups and is expected to serve as a guiding document for both the region and the MMRP for at least the next five years. It will be used to help plan and implement specific projects in the corridor and will help identify appropriate programs that can be used to address each project. Some internal management initiatives are also expected to be put in place by the MMRP to bring focus to the plan as a tool for coordination and implementation efforts. These are further explained in the Appendices of the document.

The following organizations, agencies, and interest groups attended the resource concern meetings and provided input into the plan:

American Bottoms Conservancy
American Land Conservancy
Confluence Greenway
Conservation Technologies
Ducks Unlimited
East-West Gateway Council of Governments
Farmers and Private Landowners
Illinois Department of Natural Resources
Illinois Department of Transportation
Illinois Environmental Protection Agency
Illinois Forestry Development Council
Illinois Nature Preserves Commission
Madison County Soil and Water Conservation District
Madison County Stormwater Office
Marion Ecological Services
Memco Barge Co.
Missouri Department of Conservation
Missouri Department of Natural Resources

Missouri Department of Transportation
Navigation and Ecosystem Sustainability Program Science Panel
North Alexander Drainage and Levee District
The Nature Conservancy
Prairie Rivers Network
Preston Drainage and Levee District
Sierra Club
Southwestern Illinois RC&D, Inc.
Southern Illinois Community Foundation
Southern Illinois University-Carbondale
Southwestern Illinois Metropolitan Area Planning Commission
Southernmost Illinois Tourism Bureau
The Conservation Fund
Trust for Public Land
Union County Soil and Water Conservation District
University of Missouri-Columbia
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service-Refuges and Ecological Services
U.S. Fish and Wildlife Service-Joint Venture
U.S. Forest Service
U.S. Geological Survey
U.S.D.A. Natural Resources Conservation Service

Executive Summary

The strategies and actions contained under each of the resource concern/issue goals and objectives were prioritized at a MMR Partnership meeting on August 13, 2008. The following are the top strategies and actions that surfaced through that process. These are strategies that were of interest to the broadest cross section of the Partnership and are not necessarily the ones that will have the greatest impact on the resources. These are strategies that the Partnership felt were important to address over the next several years. The number of votes for each strategy is listed. All the remaining items in this plan are still valid and will be addressed as appropriate by Partners in the delivery of their programs.

Top Four Overarching Strategies:

1. Identify conservation priority areas for each of the resource issues to help guide future efforts in land protection, restoration, and management. Utilize HGM, GIS systems, and other data/models as tools to help identify areas that would meet selected criteria and help to meet the applicable goals and objectives in the plan. **(22 votes)**
2. Increase information and outreach activities to the citizens in the region to highlight the resource needs in the corridor and encourage support for attaining the resource goals and objectives contained in the plan. **(14 votes)**
3. Protect lands through purchases from willing sellers and utilize conservation easements to help protect the natural resources and provide social and economic benefits to the community. **(16 votes)**
4. Utilize all agency/organization conservation assistance programs and initiatives to address the resource issues on public and private lands. Provide direct technical assistance to private landowners and ensure sound management of public lands to provide benefits to the landowners and the community. **(21 votes)**

Top Resource Concern/Issue Strategies:

Forest

1. Utilize voluntary Partnership and other agency/organization conservation programs to acquire land in fee simple or conservation easement programs/grants to protect conservation values on lands in Missouri and Illinois. **(18 votes)**
2. Establish priority areas in the Middle Mississippi corridor to focus partnership programs and efforts in the future using existing plans, models, and other data. **(19 votes)**

3. Partners use GIS data and HGM model to develop maps of priority areas and marginal areas where programs can be used to restore lands that can provide for large blocks of bottomland forest. **(16 votes)**
4. Convert lands on the protected and unprotected side of the levee to forest using land acquisition and tree planting programs. **(17 votes)**
5. Use HGM model to provide guidance on proper management on selected sites based on the hydrology, historic vegetation, and other site specific conditions. **(12 votes)**

Wetlands

1. Acquisition of wetlands through voluntary fee simple purchase or use of conservation easements using applicable Partner or other agency/organization programs. See appendices for applicable programs. **(18 votes)**
2. Encourage temporary flooding of agricultural lands and flood easements to provide both flood control and wetland benefits. **(14 votes)**
3. Enhance existing areas to expand the size of wetland complexes. **(12 votes)**
4. Utilize HGM model, GIS, and other data to identify current and potential areas for restoration. **(10 votes)**
5. Conduct meetings with Drainage and Levee Districts to begin a dialogue on the issue of hydraulic connections, the benefits of multiple land uses in the corridor, and the importance of agriculture to the temporary wildlife habitat in the corridor. **(10 votes)**

Wildlife Habitat

1. Utilize Partnership and other agency/organization voluntary land acquisition programs to attain land or conservation easement/grant programs to protect conservation values. See appendices for applicable programs. **(14 votes)**
2. Establish priority areas in the Middle Mississippi corridor to focus partnership programs and efforts in the future. **(14 votes)**
3. Identify needs of targeted species and then utilize HGM, aerial photos, and GIS to identify areas of interest that partners can use to target programs to priority areas. **(16 votes)**
4. Restore connectivity with river and floodplain using applicable programs with willing landowners. **(24 votes)**

Agricultural Production

1. Utilize state cost share programs in IL and MO to implement conservation practices on agricultural lands. **(9 votes)**
2. Encourage local watershed planning efforts to address local needs and involve all stakeholders in the process. Develop incentive programs to encourage

landowners to work together on group projects where there is a mutual interest. **(17 votes)**

3. Conduct outreach activities with Drainage and Levee Districts at their annual meetings, special meetings, or on individual projects to share the MMRP goals and objectives, solicit input regarding resource needs, determine how the MMRP can assist these districts, discuss level of flooding protection in various regions, and create a process for continued future relationships. **(13 votes)**
4. Promote the concept of wildlife habitat as an alternative crop or secondary land use on agricultural lands in the region. **(11 votes)**
5. Emphasize the high value of potential wetland areas in the floodplain vs. labeling them as “marginal” agricultural lands in order to recognize the potential of those lands for wildlife habitat. **(9 votes)**

Floodplain Management

1. Purchase flood easements on private lands for temporary flood storage. **(12 votes)**
2. Purchase lands and re-establish flood storage, recreation, wildlife habitat, etc., i.e. East St. Louis and Vicinity, Illinois Interior Flood Control and Ecosystem Restoration Project. **(9 votes)**
3. Re-establish connectivity with the floodplain using programs that will protect and maintain riparian areas. **(14 votes)**
4. Conduct outreach activities with Drainage and Levee Districts at their annual meetings, special meetings, or on individual projects to share the MMRP goals and objectives, solicit input regarding resource needs, determine how the MMRP can assist these districts, discuss level of flooding protection in various regions, and create a process for continued future relationships. **(10 votes)**

Economic Impact

1. Expand boating access along the river by providing more access points and facilities. **(11 votes)**
2. Assist the local citizens and communities in developing business opportunities focused on agri-tourism, eco-tourism, and/or recreation. **(16 votes)**
3. Promote legislation that would fully fund the federal payments in lieu of property taxes for lands purchased by the federal government. **(10 votes)**
4. Contact Foundations and Corporations to solicit funding for continuing MMRP coordination support. **(7 votes)**

Aquatic Habitat

(Did not address this issue at the meeting. Joyce Collins will develop this section.)

Water Quality

1. Identify areas within the corridor that are contributing to water quality degradation and provide that information to the Partners. **(14 votes)**
2. Identify areas of opportunity for wetlands, temporary water storage, edge of field wetlands for filtering, etc. at the ends of drainage ways. **(25 votes)**
3. Utilize floodplain restoration to provide for wetlands. **(16 votes)**

Recreation

1. Improve coordination between the MMR Partners and local tourism bureaus, Chambers of Commerce, Historical Societies, Mississippi River Parkway Commission, etc. to promote tourism and recreation. **(18 votes)**
2. Develop a better marketing plan and improved packaging of messages relating to recreation opportunities in the corridor and utilize web site to provide more centralized information on recreation opportunities. **(12 votes)**
3. Inventory the natural, scenic, cultural, and historic capital in the corridor that can be used as the basis to market and promote recreation and tourism. **(13 votes)**
4. Inventory current access points, determine where new access is needed, and evaluate options for providing access on the average of every 10 to 20 miles on both sides of the river. **(16 votes)**

Transportation

1. Encourage early local input and coordination in planning of river facilities along the corridor. **(8 votes)**
2. Develop a map of sensitive areas in the corridor that need protection and provide to transportation agencies, businesses, and organizations. Place on the MMRP web site. **(9 votes)**
3. Highlight the importance of sharing and using resource data early in the transportation system planning process so that environmental issues can be addressed. Encourage pre-planning reviews of data to facilitate the project planning process and avoid negative environmental and/or social impacts. For example, identify shoreline facilities along the river and other facilities that could be helpful in planning. **(18 votes)**
4. Encourage practical designs for renovation or maintenance that provide natural resource benefits, i.e. fish passages. **(10 votes)**

5. Encourage control of non-native invasive species on highway and railroad lands. **(15 votes)**

Information and Education

1. Continue to prepare an annual report for the Partnership that highlights the benefits of the projects and activities that have been planned and implemented. Coordinate the development of the report to highlight the various Partners who were involved in each activity. Include some past accomplishments as well as present accomplishments to better highlight the benefits of the Partnership activities. **(21 votes)**
2. Continue development of the MMRP web site and have links to other agencies and topics of interest. Post newsletters, brochures, publication, all outreach documents, etc on the web site along with other applicable material. Have links from other organizations to the MMRP site. **(20 votes)**
3. Update the MMRP information brochure for general use and include the logo, web site, key messages, and benefits of the Partnership. Also develop a “rack” card with web site and brief messages to catch attention and direct audiences to the web site. Identify capabilities of partners relating to information and outreach activities and the availability of time to assist with MMRP activities and projects. Identify who has web masters who might help with MMRP web site. **(8 votes)**
4. Make personal visits to legislators for briefings on activities and needs or host a legislative workshop for legislators and aids to provide an opportunity for all the partners to make presentations on corridor needs and Partnership accomplishments. **(7 votes)**

Overarching Strategies for Addressing Resource Issues In the MMR Regional Plan

The following are overarching strategies that apply to all the resource issues and concerns in the MMR Regional Plan. These are key activities that will help to address all the resource concerns/issues and move the regional stakeholders toward achieving the goals and objectives in the plan. More specific strategies or activities are contained in the resource sections of the plan to bring more focus to that specific issue.

Overarching Strategies:

1. Identify conservation priority areas for each of the resource issues to help guide future efforts in land protection, restoration, and management. Utilize HGM, GIS systems, and other data/models as tools to help identify areas that would meet selected criteria and help to meet the applicable goals and objectives in the plan.
2. Increase information and outreach activities to the citizens in the region to highlight the resource needs in the corridor and encourage support for attaining the resource goals and objectives contained in the plan.
3. Protect lands through purchases from willing sellers and utilize conservation easements to help protect the natural resources and provide social and economic benefits to the community.
4. Utilize all agency/organization conservation assistance programs and initiatives to address the resource issues on public and private lands. Provide direct technical assistance to private landowners and ensure sound management of public lands to provide benefits to the landowners and the community.
5. Continue to utilize the MMRP as the primary collaborative entity within the region. Continue current working arrangements per the MOU and develop new formal and informal working arrangements among the MMRP entities to help strengthen the delivery of services to clients and provide for a more effective and coordinated effort in providing services to the citizens in the region.
6. Develop new technologies or programs to help meet the current and future resource needs in the region, i.e. wetland/wildlife banks, carbon sequestration programs, monitoring programs, land protection programs, etc.
7. Conduct outreach to encourage new partnerships within the MMR corridor and establish relationships with non-traditional partners such as transportation entities, cultural and historical organizations, tourism agencies, etc.

Goal, Objectives, & Strategies for MMR Regional Plan

Forests

Outcome: Forestlands managed and utilized to realize optimum benefit while providing protection, conservation, and enhancement of natural characteristics and biological diversity.

Challenges and obstacles in addressing forest resources:

- The price of agricultural products has an economic impact on the willingness of landowners to convert marginal land to other uses and can also result in conversion of non-agricultural lands into agricultural production.
- Funding for land protection and conservation programs is not adequate to meet the resource needs of the corridor and decreases in funding have a significant impact on the resource base.
- Land prices continue to increase which increases the cost of land preservation and protection and strengthens the economic incentives to keep the land in some type of production.
- CRP land may not be enrolled or re-enrolled due to the prices for agricultural products.
- Tax dis-incentives result in lands being converted to other uses.
- Getting information to the public and landowners on the resource needs of the corridor.
- The administrative rules for some conservation programs are becoming more complex and are deterring some landowners from participating.
- Removal of land from the property tax base causes impacts on the local school systems and local governments.
- Agencies ability to work on both public and private lands when authorities may not provide for such diverse activities.
- Lack of landowner awareness of restoration and management opportunities.
- Lack of technical staff to work with landowners and citizens.
- Distrust of government by some people.

Goal 1: Protect forested riverine habitat and healthy forests across wide stretches of the floodplain that contain sufficient diversity of tree species, size, and age to provide diverse habitat structure and food resources.

Numeric Target: 20% increase in forest acreage in 20 years or approximately 20,000 more acres in forest in the corridor by 2028. (This target will change. Targets are currently being refined based on the results of the HGM study.)

Objectives:

A. Protect additional lands through willing seller acquisition, conservation easements, landowner management agreements, tax incentives, and other cooperative means to ensure long-term viability of remaining forest resources.

Strategies:

1. Utilize voluntary stakeholder programs to acquire land in fee simple or conservation easement programs/grants to protect conservation values on lands in Missouri and Illinois. See list of programs in Appendix B.
2. Promote tax incentives for forestry management and provide cost sharing for management.
3. Establish priority areas in the Middle Mississippi corridor to focus stakeholder programs and efforts in the future using existing plans, models, and other data.
4. Provide conservation assistance to public and private land owners using programs outlined in the appendices.

B. Promote protection of existing riparian corridors and forest buffers along main channel and tributary streams.

Strategies:

1. Provide direct assistance to landowners and encourage landowners to develop a conservation plan on their lands to manage forest resources and riparian corridors.
2. Utilize stakeholder programs to protect riparian areas and maintain those areas as forest and wildlife habitat. See Appendix B for programs available.

Goal 2: Restore and enhance floodplain forest to meet the need of migratory and nesting neotropical birds and other forest dependent wildlife.

Numeric Target: Restore 20,000 acres of floodplain forest within 20 years. This would bring the total forest land to 50% of the pre-settlement extent in the corridor. Pre-settlement acreage was 109,000 acres and forest in the year 2000 covered 89,000 acres in the corridor. (From Illinois Wildlife Action Plan) (This target will change. Targets are currently being refined based on the results of the HGM study.)

Objectives:

A. Restore large blocks (500 acre minimum) of bottomland forest and associated shallow and deep-water wetlands.

Strategies:

1. Promote federal/state/local tax incentives to help landowners restore floodplain forests.
2. Stakeholders use GIS data and HGM study to develop maps of priority areas and marginal areas where programs can be used to restore lands that can provide for large blocks of bottomland forest.
3. Work with willing landowners to convert lands on the protected and unprotected side of the levee to forest using conservation programs, land easements and acquisition and tree planting programs.

B. Use innovative silvicultural practices, where possible and practical, such as constructing dredge spoil ridges to improve tree root aeration, establishing native grass cover for weed control, and planting native trees

Strategies:

1. Construct dredge spoil ridges to improve tree root aeration and incorporate dredge material into the ground before planting trees.
2. Establish native grass cover for weed control.
3. Hold practitioners workshops to promote the latest technology and innovations relating to natural resource management in the floodplain.
4. Promote prescribed burning as a management practice on grasslands and forestlands in the corridor.
5. Establish regenerational plots to help provide for new growth of native grasses and trees.
6. Promote and use sustainable silvicultural/forest management practices to maintain early successional forest communities needed to sustain declining species as required.

C. Encourage private landowners to convert marginal croplands to forest.

Strategies:

1. Utilize voluntary conservation programs to acquire land or conservation easement/grant programs to protect conservation values. See Appendix B for programs available.
2. Utilize programs to address carbon sequestration from forest lands.
3. Promote the benefits of reforestation in the MMR corridor as compared to upland areas, i.e. more production, more carbon sequestration, etc.

D. Restore and enhance floodplain forest block size, structural diversity, and spatial distribution along the river corridor through management of existing areas and restoration of additional areas on public and private lands.

Strategies:

1. Utilize voluntary land acquisition programs to attain land or conservation easement/grant programs to protect conservation values. See Appendix B for applicable programs.
2. Encourage more USFS involvement forestry activities in the corridor within the state of Missouri.
3. Establish priority areas in the Middle Mississippi River corridor to focus stakeholder programs
4. Utilize programs to address carbon sequestration from forest lands.

E. Promote restoration of existing riparian corridors and forest buffers along main channel and tributary streams using existing programs.

Strategies:

1. Provide information to landowners on where riparian corridor protection is needed, the benefits of riparian corridor restoration, and the criteria for riparian areas protection.
2. Provide direct assistance to landowners and encourage landowners to develop a conservation plan on their lands to manage forest and other resources.
3. Utilize MMRP and other regional stakeholder programs to restore riparian corridors. See Appendix B for programs available.

Goal 3: Sustainable forest management practiced on all forests in the corridor.

Numeric Target: All forest lands in the corridor have a management plan within 20 years.

Objectives:

A. Expand the Upper Mississippi River Forestry Partnership to increase the acreage of lands under sustainable forest management.

Strategies:

1. Utilize state and private forestry grants from USFS to address forest management in the corridor.
2. Make USFS personnel more aware of state and private assistance opportunities relating to forestry in the corridor.

B. Increase technical assistance and use stewardship programs of various agencies and organizations to encourage private and public woodland landowners to practice sustainable forest management.

Strategies:

1. Provide more equipment and technical expertise for prescribed burns in the corridor.
2. Increase forestry personnel to provide technical assistance on forest management planning and practice implementation.
3. Utilize stakeholder programs to develop forestry management plans and conservation management plans as well as promote the economic and environmental benefits of developing these plans.
4. Encourage private foresters to become involved in addressing forestry issues in the corridor and work to facilitate the availability of their assistance.
5. Promote and use sustainable silvicultural/forest management practices to maintain early successional forest communities needed to sustain declining species as appropriate.
6. Use HGM study to provide guidance on proper management on selected sites based on the hydrology, historic vegetation, and other site specific conditions.

Wetlands

Outcome: Wetland functions and values providing long-term sustainable habitat for desired plants and animals.

Challenges and obstacles in addressing wetland resources:

- Negative perceptions of wetlands as “swamps” and the associated problems associated with that label.
- Conflicts with landowners and drainage and levee districts relating to negative water level impacts on adjoining lands when wetland projects are implemented.
- Limited funding to address wetland protection, restoration, and management.
- Limited connectivity between wetlands and the river channel.
- Altered hydrology and the potential of restoring water levels to wetland areas.
- Long-term monitoring of easements and associated increasing workloads, changing landowners, maintenance needs, etc.
- The price of agricultural products has an economic impact on the willingness of landowners to convert marginal land to other uses and can also result in conversion of non-agricultural lands into agricultural production.
- Land prices continue to increase which increases the cost of land preservation and protection and strengthens the economic incentives to keep the land in some type of production.
- CRP land may not be enrolled or re-enrolled due to the prices for agricultural products.
- Tax dis-incentives (mostly property tax) result in lands being converted to other uses.
- Getting information to the public and landowners on the resource needs of the corridor.

- The administrative rules for some conservation programs are becoming more complex and are deterring some landowners from participating, i.e. WRP program appraisal rules are more complex.
- Removal of land from the property tax base causes impacts on the local school systems and local governments.
- Agencies ability to work on both public and private lands when authorities may not provide for such diverse activities.
- Lack of landowner awareness of restoration and management opportunities or programs available.
- Lack of technical staff to work with landowners and citizens on planning and implementing projects.
- Distrust of government by some people.

Goal 1: Protect existing wetland resources to provide diverse habitat for waterfowl, shorebirds, wading birds, and other wetland dependent species

Numeric Target: No net loss of wetlands within the next 20 years. (This target will change. Targets are currently being refined based on the results of the HGM study.)

Objectives:

A. Protect areas of isolated backwaters and ephemeral wetlands, providing seasonal and semi-permanently flooded wetland vegetation types in areas of the corridor with little water level control.

Strategies:

1. Enforce current federal/state wetland protection statutes and rules to keep wetland areas from being filled or drained and converted to other land uses.
2. Acquisition of wetlands through voluntary fee simple purchase or use of conservation easements using applicable MMRP or other agency/organization programs. See Appendix B for applicable programs.
3. Prioritize efforts for protection using HGM and other GIS tools.

B. To protect wetland areas in the corridor interspersed within agricultural areas to provide migration habitat for waterfowl and shorebirds.

Strategies:

1. Encourage temporary flooding of agricultural lands and flood easements to provide both flood control and wetland benefits.

2. Use federal/state enforcement tools as needed to protect wetlands from being drained or filled and converted to other land uses.
3. Use voluntary acquisition programs to protect wetlands and work with NGOs to acquire smaller wetland that agencies cannot address.

Goal 2: Restore and enhance complex wetland areas to provide diverse habitat for waterfowl, shorebirds, wading birds, and other wetland-dependent species.

Numeric Target: Restore 4,000 acres of wetlands with the next 20 years. There were 21,000 acres of wetlands in the year 2000. This goal represents a 25% increase by 2028. (From IL Wildlife Action Plan) (This target will change. Targets are currently being refined based on the results of the HGM study.)

Utilizing the MMRP as the facilitating entity, meet with Drainage and Levee Districts within the next 2 years to discuss hydraulic connections and other items of mutual interest.

Objectives:

A. Restore a network of diverse wetland types along the corridor that provide areas of seasonal, semi-permanent, and permanently flooded wetlands.

Strategies:

1. Utilize Stakeholder programs to restore wetlands in the corridor. See Appendix B for applicable programs.
2. Promote, establish, and utilize wetland banks in the corridor to provide an opportunity for mitigation of wetland functions and values when areas have to be destroyed or impacted by various projects.

B. Develop a coordinated effort of land restoration including a private lands assistance program for the corridor.

Strategies:

1. Provide technical assistance using existing agency staff to help private landowners plan and apply practices that impact wetland resources.
2. Continue coordination function of the MMRP to facilitate delivery of regional stakeholder programs to landowners and help focus regional stakeholder efforts in a manner that complements the various efforts.
3. Use the MMRP as a regional entity to establish committees to address regional stakeholder's specific issues and serve to coordinate delivery of programs.

4. Within the region identify agencies and individual champions to provide leadership to specific natural resource issues/concerns or specific objectives or strategies in this plan.
5. Develop plans and strategies to address batture lands along the river and what is needed to protect the resources on these lands while maintaining other economic, social, and environmental needs in the corridor.
6. Utilize the MMRP as a clearing house for what is happening in the corridor and maintain a web site for information sharing.
7. Utilize MMRP annual meetings, web site, newsletters, teleconferences, etc. to coordinate regional efforts.
8. Initiate an effort to bring more U.S. Fish and Wildlife Service private lands staff to address MMR restoration issues.

C. Restore areas of palustrine forests and improve hydrology in bottomland hardwoods in the corridor.

Strategies:

1. Utilize stakeholder programs to address restoration needs and increase areas of palustrine forest. See Appendix B for applicable programs.

D. Restore large wetland complexes including areas of deep-water habitat for diving ducks and other desired wildlife species.

Strategies:

1. Redirect upland water to wetlands areas to restore hydrology and restore the wetland functions and values.
2. Enhance existing areas to expand the size of wetland complexes.
3. Utilize stakeholder programs to restore wetland complexes. See Appendix B for applicable programs.
4. Utilize HGM study, GIS, and other data to identify current and potential areas for restoration.

E. Restore hydraulic connection between the river's main channel and marginal farmland areas for potential restoration of wetlands.

Strategies:

1. Develop plans and strategies to address batture lands along the river and what is needed to protect the resources on these lands while maintaining other economic, social, and environmental needs in the corridor.
2. Find willing landowners interested in floodway connection with the main channel and side tributaries and work with them to protect areas that will provide for potential restoration of wetlands using programs available.

3. Conduct meetings with Drainage and Levee Districts to begin a dialogue on the issue of hydraulic connections, the benefits of multiple land uses in the corridor, and the importance of agriculture to the temporary wildlife habitat in the corridor.
4. Develop a comprehensive plan for levee improvement and maintenance in cooperation with the stakeholders in the corridor and use applicable programs to implement the components of that plan.
5. Continue work on reconnection projects such as Horseshoe Lake.
6. Identify semi-permanent wetlands and backwater lakes and water/wetland areas for potential restoration using HGM, GIS, and other resource data or models.

Goal 3: Manage existing wetland areas to provide maximum habitat values compatible with other surrounding land uses.

Numeric Target: Enhance 4,000 acres of currently existing low quality wetlands over next 20 years. (This target will change. Targets are currently being refined based on the results of the HGM study.)

Target: Utilizing the MMRP as the facilitating entity, meet with Drainage and Levee Districts within the next 2 years to discuss management opportunities and issues.

Objectives:

A. Develop a coordinated effort of land management including a private lands assistance program for the corridor.

Strategies:

1. Provide technical assistance using existing agency staff to help private landowners plan and apply practices that impact wetland resources.
2. Continue coordination function of the MMRP to facilitate delivery of regional stakeholder programs to landowners and help focus regional stakeholder efforts in a manner that complements the various efforts.
3. Use the MMRP as a regional entity to establish committees to address regional stakeholder's specific issues and serve to coordinate delivery of programs.
4. Within the region identify agencies and individual champions to provide leadership to specific natural resource issues/concerns or specific objectives or strategies in this plan.
5. Develop plans and strategies to address batture lands along the river and what is needed to protect the resources on these lands while maintaining other economic, social, and environmental needs in the corridor.
6. Utilize the MMRP as a clearing house for what is happening in the corridor and maintain a web site for information sharing.
7. Utilize MMRP annual meetings, web site, newsletters, teleconferences, etc. to coordinate regional efforts.

8. Initiate an effort to bring more U.S. Fish and Wildlife Service private lands staff to address MMR restoration issues.
9. Hold workshops, tours, and meetings to coordinate private land assistance.

B. Develop partnerships for reforestation and wetland management.

Strategies:

1. Develop a Memorandum of Agreement (MOA) on sharing data and information among the stakeholders so that a more formal process is established to ensure continued coordination; i.e. sharing native seed sources.
2. Utilize the Section 319 grant program in watershed management planning to help with outreach to private landowners.
3. Promote multiple benefits of wetland management for landowners.
4. Conduct meetings with Drainage and Levee Districts to begin a dialogue on the issue of hydraulic connections and the benefits of multiple land uses in the corridor, and the importance of agriculture to the temporary wildlife habitat in the corridor.
5. Implement flooding easements or agreements with willing landowners to provide for reforestation and wetland management

Wildlife Habitat

Outcome: Healthy and diverse wildlife populations through habitat restoration, development, management, and/or land protection.

Challenges and obstacles in addressing wildlife habitat resources:

- The price of agricultural products has an economic impact on the willingness of landowners to convert marginal land to other uses and can also result in conversion of non-agricultural lands into agricultural production.
- Funding for land protection and conservation programs is not adequate to meet the resource needs of the corridor and decreases in funding have a significant impact on the resource base.
- Land prices continue to increase which increases the cost of land preservation and protection and strengthens the economic incentives to keep the land in some type of production.
- CRP land may not be enrolled or re-enrolled due to the prices for agricultural products.
- Tax dis-incentives (normally property taxes) result in lands being converted to other uses.
- Getting information to the public and landowners on the resource needs of the corridor.

- The administrative rules for some conservation programs are becoming more complex and are deterring some landowners from participating.
- Removal of land from the property tax base causes impacts on the local school systems and local governments.
- Some agencies lack of authority to work on both public and private lands.
- Lack of landowner awareness of restoration and management opportunities and applicable programs that might provide assistance.
- Lack of technical staff to work with landowners and citizens on planning and application of conservation projects.
- Distrust of government by some people.
- Concern about agricultural crop damage from over-populations of wildlife.
- Concern about private property trespass and property damage from hunters and others who are involved in outdoor activities relating to natural resource use...

Goal 1: Protect terrestrial habitats to benefit grassland and early successional forest birds, waterfowl, neotropical birds, reptiles, amphibians, and other desired wildlife species.

Numeric Target: Restore 10,400 acres of grassland within 20 years. (From IL Wildlife Action Plan.) (This target will change. Targets are currently being refined based on the results of the HGM study.)

Objectives:

A. Protect additional lands through willing seller acquisition, conservation easements, landowner management agreements, or other cooperative means, to ensure long-term viability of terrestrial habitats in the corridor.

Strategies:

1. Utilize stakeholder voluntary land acquisition programs to attain land or conservation easement/grant programs to protect conservation values. See Appendix B for applicable programs.
2. Promote the benefits of reforestation in the MMR corridor as compared to upland areas, i.e. more production, more carbon sequestration, etc.
3. Encourage more USFS involvement in forestry and wildlife habitat activities within the corridor in Missouri.
4. Establish priority areas in the Middle Mississippi corridor to focus stakeholder programs and efforts in the future.

B. Protect wet meadow complexes, grasslands, scrub/shrub areas, and early successional forests.

Strategies:

1. Identify species of interest in the corridor to help prioritize the habitats needing protection or restoration.
2. Utilize stakeholder voluntary land acquisition programs to attain land or conservation easement/grant programs to protect conservation values. See Appendix B for applicable programs.
3. Utilize water level manipulation, mowing, disking, and burning as management tools

C. Increase private lands involvement in acres being managed for wildlife habitat and utilize agricultural techniques as management tools to maintain high quality wildlife habitat.

Strategies:

1. Promote information and education efforts for landowners.
2. Promote conservation practices on agricultural lands that enhance wildlife habitat.
3. Promote alternative crops on agricultural lands to provide secondary wildlife benefits as well as meet agricultural production needs.

Goal 2: Restore or enhance riparian corridors along the open river off-channel areas.

Numeric Target: Restore 10,800 acres of forest within 20 years (IL WAP) (This target will change. Targets are currently being refined based on the results of the HGM study.)

Objectives:

A. Increase acreage and diversity of riparian habitats through restoration and enhancement.

Strategies:

1. Provide information to landowners on the benefits of riparian corridor restoration, identify areas where protection is needed, and provide criteria on restoring areas.
2. Provide technical assistance and encourage landowners to develop a conservation plan on their lands to manage forest and other resources.
3. Identify lands adjacent to off-channel areas that are enrolled in WRP, in public ownership, or controlled by NGOs.
4. Promote riparian area protection with private landowners during field days, tours, events, meetings, etc.

B. Restore spawning, nursery, foraging, and roosting areas for species such as the Pallid Sturgeon, Bald Eagle, Mississippi Kite, and Interior Least Tern, etc.

Strategies:

1. Provide information to landowners on the benefits of riparian corridor restoration, identify areas where protection is needed, and provide criteria on restoring areas.
2. Provide technical assistance and encourage landowners to develop a conservation plan on their lands to manage forest and other resources.
3. Utilize stakeholder to restore applicable areas for selected species of wildlife. See Appendix B for applicable programs.
4. Identify lands adjacent to off-channel areas that are enrolled in WRP, in public ownership, or controlled by NGOs.
5. Identify needs of targeted species and then utilize HGM, aerial photos, and GIS to identify areas of interest that stakeholders can use to target programs to priority areas.
6. Restore connectivity with river and floodplain using applicable programs with willing landowners.
7. Utilize recovery funding to address selected species.

Goal 3: A habitat management program in place in the corridor on public and private lands that promotes the use of natural resources in meeting fish and wildlife objectives.

Numeric Target: Create a depository for data and information that can be accessed on the MMRP website by 2009.

Objectives:

A. Manage habitats to provide dependable supplement to natural food sources for waterfowl and to provide needed open-space nesting areas.

Strategies:

1. Promote water control structures for temporary flooding of crop fields and crop residues.
2. Leave food plots for wildlife on public lands and encourage private landowners to provide food plots on agricultural lands.
3. Encourage planting of alternative crops, such as rice, on agricultural operations to provide for wildlife habitat while also meeting agricultural production objectives.
4. Establish and maintain islands on public lands in the corridor for nesting habitat.
5. Identify native plants that need to be restored and utilize the NRCS Plant Materials Program to provide foundation seed to commercial seed growers.

B. Maintain smaller patches of grassland habitat where established for levee maintenance, cultural resource protection, or environmental education.

Strategies:

1. Encourage use of native grasses for wildlife habitat.
2. Promote mowing of wildlife habitat after August 1st, use haying and grazing as management tools on grassland habitats, and promote burning and spraying for weed management.

C. Develop a functioning fish and wildlife habitat, and public use monitoring program, integrated with interagency efforts along the corridor.

Strategies:

1. Develop a plan as to what specific types of fish and wildlife habitat to monitor in the corridor.
2. Develop a habitat monitoring technology to be used in the corridor.
3. Establish a committee or task force of stakeholders to address program development that would outline a monitoring strategy and procedure for fish and wildlife habitat in the corridor

D. Evaluate the effectiveness of management programs and provide information for adaptive management strategies.

Strategies:

1. Actively share, formally and informally, what we learn and the results of research and program benefits with partners.
2. Establish a structure or regional Memorandum of Agreement (MOA) for sharing information.
3. Conduct workshops as part of MMRP activities and maintain the MMRP web site.
4. Leverage the use of volunteers to help with management programs.

Agricultural Production

Outcome: Agricultural land in sufficient quality and quantity to ensure agricultural viability in the region.

Challenges or obstacles to maintaining agricultural lands in production in the corridor in an environmentally sustainable manner:

- The average age of the population in the corridor is getting older and there is a lack of people wanting to remain in agricultural production in the area.
- Trends in agricultural crop prices have an impact on willingness to stay in business. Good prices now may take a downturn in the future.

- Land values continue to increase for all types of land and often land for hunting will bring a higher price than land for agriculture.
- Frequent flooding of some areas has an impact on agricultural production on adjacent fields.
- Lack of support infrastructure for farms in some areas.
- Uncertainty of legislation and programs affecting agriculture operations.
- Lack of funds to maintain adequate drainage and flood control systems on agricultural lands.
- Conversion of agricultural lands to commercial and residential uses.
- Rules of government programs are difficult to follow and make qualifying for the program difficult.
- Different opinions of the impacts of drainage on agriculture and wildlife habitat.
- Impacts of WRP projects on adjoining property due to hydrology changes.
- Local municipalities extending facility planning areas into agricultural areas and the resulting land use changes.
- Agricultural land preservation is not a priority in the corridor.
- Definitions of prime and marginal lands do not address the local values of land. Often what is called marginal agricultural land due to wetness, flooding etc. may be the best land for income production due to its hunting values.
- Focusing on larger projects eliminates smaller landowners from participation.
- Adjoining impact of conservation projects makes it difficult for just one landowner to participate. Need group projects to be successful.
- Cost of maintaining ditches in WRP and other easement lands.
- Lack of drainage maintenance on converted lands, wetlands, etc.
- Land placed in public ownership and coming off the local tax roles impacts Drainage and Levee Districts.
- Getting water into wetland cells and maintaining hydrology.
- Levees are not being used for their intended purpose.
- Lack of proper functioning of drainage structures/systems and associated impacts.

Goal 1: Prime agricultural and other high producing lands maintained in agricultural production and with properly maintained and functioning drainage and levee systems.

Objectives:

A. Promote the use of conservation practices that will provide for sustainable agricultural operations and provide benefits for wildlife resources.

Strategies:

1. Utilize stakeholder cost share programs to install conservation practices on agricultural lands. Utilize EQIP, WRP, CRP and other Farm Bill programs to address conservation practices on agricultural lands.

2. Emphasize the importance and benefits of private landowners managing natural resources in the corridor.
3. Utilize private or other organization programs to supplement cost-shares to landowners for conservation practice installation.
4. Encourage efforts to tailor programs to the local and regional level to better address the specific resource needs. Encourage revisions to the CRP program to make the eligibility requirements more flexible at the local level.
5. Direct programs to smaller working farms to encourage and maintain agricultural sustainability in the corridor.
6. Establish pilot programs in the area to test new methods and programs for agricultural land conservation.

B. Expand and revise voluntary cost-share programs for more flexibility and technical assistance to assist landowners/operators in establishing soil conservation and water quality practices on cropland and non-cropland areas.

Strategies:

1. Encourage USDA to revise the administrative requirements to the WRP program to make it easier to administer and more acceptable to landowners, i.e. revise the appraisal requirements.
2. Encourage revision of the CRP program rules and rental rates to make the program easier to administer and more applicable to the landowners varied needs.
3. Utilize state cost share programs in IL and MO to implement conservation practices on agricultural lands.
4. Encourage landowners to develop a conservation plan on their lands to meet their land use objectives before signing up for a specific cost share program. Attempt to get landowners to determine financial and other commitments to projects before proceeding with cost-share programs.
5. Encourage more use of Fish and Wildlife Service private lands programs in IL and support increasing program funding.

C. Evaluate all projects as to their impacts on drainage/flooding of adjoining agricultural lands to minimize effects to agricultural lands and systems.

Strategies:

1. Utilize NPDES storm water and erosion and sediment control programs to minimize impacts on adjoining agricultural drainage systems.
2. Encourage local watershed planning efforts to address local needs and involve all stakeholders in the process. Develop incentive programs to encourage landowners to work together on group projects where there is a mutual interest.
3. Conduct outreach activities with Drainage and Levee Districts at their annual meetings, special meetings, or on individual projects to share the MMR Regional

- Plan goals and objectives, solicit input regarding resource needs, determine how the MMRP can assist these districts, discuss level of flooding protection in various regions, and create a process for continued future relationships.
4. Honor existing drainage and levee maintenance agreements with landowners, drainage districts, and other entities when planning and implementing projects that will have impacts on the systems

Goal 2: Increase use of non-traditional crops in the floodplain to enhance agricultural production and meet other resource goals.

Objectives:

A. Promote programs and initiatives relating to carbon sequestration to give landowners economic incentives to look at non-traditional crops and land uses.

Strategies:

1. Encourage pilot projects in smaller areas to make the case for new incentives.
2. Evaluate the concept of short rotation forestry on some lands in corridor, i.e. batture lands.
3. Develop the concept of a wildlife “bank” similar to a wetland bank to provide for habitat benefits in the corridor.
4. Utilize carbon sequestration programs to encourage wildlife habitat maintenance.
5. Encourage establishment of seedings and tree plantings that sequester carbon.

B. Seek non-traditional crops that can help diversify agricultural operations in the corridor, while also providing wildlife habitat benefits. Encourage the appropriate agencies and organizations to promote and market these diverse crops.

Strategies:

1. Develop an inventory of alternative crops for agricultural lands and distribute to all stakeholders with understanding that all producers cannot establish the same alternative crops
2. Promote alternative crops (such as rice) and crops for bio-fuel production (such as switchgrass, giant miscanthus, etc.) where appropriate.
3. Promote the concept of wildlife habitat as an alternative crop or secondary land use on agricultural lands in the region.
4. Solicit assistance from universities and extensions to do research on alternative crops for floodplain lands that are adapted to the resource conditions and provide multiple environmental benefits.
5. Develop programs for wildlife habitat that are not totally dependent on tree plantings.

Goal 3: Restoration of marginal agricultural lands to other land/resource uses through economic incentives for landowners.

Objectives:

A. Identify marginally productive lands, frequently flooded croplands, areas of hydric soil, etc. and offer economic incentives to landowners to convert those lands to other uses through participation in WRP, EWRP, CRP, WHIP, and other programs.

Strategies:

1. Emphasize the high value of potential wetland areas in the floodplain vs. labeling them as “marginal” agricultural lands in order to recognize the potential of those lands for wildlife habitat.
2. Develop maps of potential area using criteria such as frequently flooded, non-prime, slowly permeable, hydric, etc.
3. Promote the benefits of waterfowl and deer hunting and the associated land use conservation benefits of that use.

Floodplain Management

Outcome: Corridor and floodplain providing a balance of flood control, navigation, drainage, and fish and wildlife benefits.

Challenges and obstacles to addressing floodplain management:

- Focusing on larger projects eliminates smaller landowners from participation.
- Adjoining impact of conservation projects makes it difficult for just one landowner to participate. Need group projects to be successful.
- Cost of maintaining ditches in WRP and other easement lands.
- Lack of drainage maintenance on converted lands, wetlands, etc.
- Land placed in public ownership and coming off the local tax roles impacts Drainage and Levee Districts.
- Getting water into wetland cells and maintaining hydrology of wetland areas.
- Levees are not being used for their intended purpose.
- Lack of proper functioning of drainage structures/systems and associated impacts.
- Failure to honor agreements with Drainage and Levee Districts regarding drainage maintenance and flood control.
- Negative impact of hydrology on agricultural production on adjoining properties when wetlands are restored or created.
- Cannot limit flooding to only one property or to only interested landowners. Larger areas need to be considered when evaluating flood control options.

Goal 1: Utilization of new techniques that provide a balance of benefits in protecting natural resources in the floodplain.

Objectives:

A. Identify chronic dredging areas that may provide the potential for sandbar or sand island creation, or chevron dike creation, all of which increase habitat diversity for wildlife or fish.

Strategies:

1. Use HGM study and GIS data to identify locations and opportunities to increase habitat diversity.

Goal 2: Utilization of alternative areas for floodwater storage.

Objectives:

A. Explore alternative measures to managing floodwaters in the corridor rather than confining floodwaters exclusively to the river channel.

Strategies:

1. Encourage larger municipalities to attain alternative locations for temporary flood storage using flooding easements, purchases of lands, etc. Separate flow from storage areas when considering alternative storage areas.
2. Pursue temporary flood storage with insurance companies to provide policies that would pay for damages due to temporary flood storage on easement lands.
3. Purchase flood easements on private lands for temporary flood storage.
4. Purchase lands and re-establish flood storage, recreation, wildlife habitat, etc., i.e. East St. Louis and Vicinity, Illinois Interior Flood Control and Ecosystem Restoration Project.

Goal 3: Enhanced floodplain functions and, where practicable, mimic historic water level fluctuations in the river corridor.

Objectives:

A. Conduct activities and promote partnerships and interagency coordination that encourage a balanced floodplain management program.

Strategies:

1. Encourage public agencies to better manage their areas for wildlife habitat and for flood control. Set a good example of multiple resource management as a public landowner.
2. Involve private landowners in project reviews and planning, i.e. use an entity like the MMRP to set up a landowner committee for project input.
3. Use local SWCD Board as point of contact for getting landowner and public input on specific projects.
4. Encourage agencies to have definitive answers to questions that surface on conservation issues in the corridor to build trust and confidence with local landowners and stakeholders.

B. Manage riparian lands for wildlife while considering floodplain functions and contributing to improving those values.

Strategies:

1. Evaluate widths of needed riparian areas to determine appropriate size to meet the resource needs of the area.
2. Pursue changing the CRP criteria to allow for filter strips in riparian areas.
3. Develop better definitions of terms relating to riparian areas and floodplain functions.
4. Re-establish connectivity with the floodplain using programs that will protect and maintain riparian areas.
5. Capture economic values of riparian areas relating to flood control and wildlife habitat.
6. Encourage establishment of future programs that provide cost sharing for multiple conservation benefits vs. payments for only single conservation purposes.

Goal 4: Adequately funded and functioning Drainage and Levee Districts in the corridor that can meet their responsibilities relating to resource management.

Objectives:

A. Drainage and Levee District Commissioners knowledgeable of the multiple conservation issues and relationships in the corridor as well as their responsibilities relating to drainage and flood control.

Strategies:

1. Conduct outreach activities with Drainage and Levee Districts at their annual meetings, special meetings, or on individual projects to share the MMR Regional

- Plan goals and objectives, solicit input regarding resource needs, determine how the MMRP can assist these districts, discuss level of flooding protection in various regions, and create a process for continued future relationships.
2. Develop a mailing database and newsletter for commissioners to keep them posted on a regular basis of resource issues in the corridor.

B. Drainage and Levee Districts that have the financial resources to carry out their responsibilities relating to drainage and flood control.

Strategies:

1. Explore alternative funding opportunities for Drainage and Levee Districts to offset the loss of revenue from property taxes and special assessments when land is placed in public ownership.
2. Support efforts to make sure that fees in lieu of taxes return to the affected communities and the affected programs within the community.

Economic Impact

Outcome: Natural resource use and management that contributes to a healthy and sustainable economy for residents in the region.

Challenges and obstacles to improving the economy of the corridor:

- Population is decreasing and the average age is getting older in the corridor.
- Towns no longer exist in parts of the floodplain.
- Road systems do not provide adequate access to the recreation areas and associated opportunities.
- Rules and procedures on out of state hunters in Illinois hinder hunting opportunities and reduce income for local communities.

Goal 1: Increased resource compatible recreation opportunities on public and private lands.

Objectives:

A. Establish programs to link hunters, fisherman, and those seeking outdoors experiences with willing landowners who can provide hunting, fishing, and/or other recreation opportunities.

Strategies:

1. Encourage IDNR to expand deer permits for out of state hunters and give more advanced notice of the permit.
2. Utilize programs such as Access Illinois to link more out of state hunters with landowners in Illinois who allow hunting.
3. Expand boating access along the river by providing more access points and facilities.
4. Provide assistance to expand the number of “quality” recreation sites on both public and private land so that people will want to return in the future.
5. Develop and support internet web sites that will link citizens to potential recreation opportunities in the corridor.

B. Support opportunities for resource based recreation on private and public lands.

Strategies:

1. Support various groups’ efforts to benefit waterfowl in certain regions of the corridor
2. Encourage the University of Illinois Extension to provide information to landowners and citizens on creating recreation opportunities in the corridor.

Goal 2: Increased income to local communities from recreation and tourism associated with natural resource use in the corridor.

Objectives:

A. Increase wildlife viewing opportunities on public lands. Establish wildlife viewing/nature watch trails in the MMR corridor and work with local communities to package wildlife tours with other attractions such as wine trails to increase overnight visits.

Strategies:

1. Utilize abandoned railroad rights of way for trails in the corridor, i.e. Katy Trail in Missouri.
2. Provide parking areas along roadways and trails for birding, photography, etc.
3. Explore the possibility of allowing biking on the levees with some level of access control and requirements.
4. Provide better signage for recreation opportunities in the corridor.
5. Contact organizations interested in birding, such as Audubon Society, and connect them with local opportunities in the corridor.
6. Promote local photography opportunities in the corridor.

7. Assist the local citizens and communities in developing business opportunities focused on agri-tourism, eco-tourism, and/or recreation.

B. Assist the local citizens and communities in developing business opportunities focused on agri-tourism, eco-tourism, and/or recreation.

Strategies:

1. Secure funding for a coordinator for the MMRP, which in turn could help identify and facilitate meetings with local communities on natural resource based economic development opportunities.
2. Utilize specialists from U of I Extension or USDA Rural Development to provide economic development assistance to local entities.
3. Utilize Illinois Department of Commerce and Economic Opportunity assistance and grants to help with economic development bases on recreation opportunities.
4. Use web sites and provide links to recreation opportunities in the corridor.

C. Work with appropriate agencies to track economic values of multiple benefits of what is done in the corridor to include recreational and tourism values.

Strategies:

1. Work with visitor and convention bureaus to track economic values of tourism, recreation, hunting, etc. in the corridor.
2. Look at existing studies to gather information on benefits to the corridor.
3. Look at existing studies and evaluate the FWS 5 year study of recreation to get applicable data on recreation benefits for use in promoting opportunities in the corridor
4. Evaluate the recreation benefits of refuges and forest service lands and share those results with other partners, local businesses, communities, chambers of commerce, etc

D. Disseminate information about payments in lieu of taxes to local governments when lands are placed in public ownership.

Strategies:

1. Promote legislation that would fully fund the federal payments in lieu of property taxes for lands purchased by the federal government.
2. Deliver federal payments in person to local governments to ensure local awareness of the payment program.
3. Support efforts to make sure fees in lieu of taxes return to the affected communities and the affected programs within the community.

E. Work with appropriate agencies to explore opportunities for use of historic and cultural resources as opportunities to enhance tourism and recreation.

Strategies:

1. Work with State Historic Preservation Agency in IL and MO to identify local historic recreation opportunities.
2. Utilize agency/organization policies and procedures to protect cultural and historic resources when planning and implementing projects.
3. Contact local Historical Societies to locate recreation opportunities in the corridor determine methods of promoting these sites to tourists.
4. Work with local visitor centers, chambers of commerce, communities, etc. to provide information on recreation opportunities in the region.

Goal 3: Efficient and effective programs available to assist in the protection, restoration, and management of the natural resources in the corridor.

Objectives:

A. Regional stakeholders, agencies, and groups will combine efforts and funding to address the highest priority issues in the corridor.

Strategies:

1. Set up a management structure within the MMRP and develop formal arrangements to facilitate regional partnering to plan and/or implement various projects in the corridor.
2. Review existing natural resource plans, identify priorities for the MMR corridor for the next five years, determine how the various stakeholders can cooperate to address the resource issues identified, and communicate results to Partnership as well as other regional stakeholders.
3. Utilize the HGM study, GIS, and other resource data to identify areas where stakeholders can combine programs and activities to address local needs.
4. Establish regional leads or “Champion” for various projects or priorities that would be responsible for providing leadership to that effort and coordinating the stakeholder activities related to that project/issue.
5. Evaluate priority projects identified for the next five years and develop a fundraising plan to obtain the needed financial resources from government funding, grants, private foundations, etc.

B. Explore opportunities to utilize or create a revolving fund that could be used for land enhancement, restoration, or protection in the corridor.

Strategies:

1. Establish a dedicated fund for the MMRP and solicit funding to help implement natural resource projects for regional stakeholders in the corridor. Establish one fund in the southern region through SICF and one in the northern region through Southwestern Illinois RC&D.
2. Contact private foundations for funding of natural resource projects and establish/utilize endowments to fund natural resource issues in the corridor.

C. Explore opportunities for dedicated funding to the Middle Mississippi River Partnership to provide for a sustainable partnership and regional effort.

Strategies:

1. Investigate opportunities for Forest Service to provide dedicated funding or staffing to the MMRP.
2. Ask MMRP partners to contribute to a dedicated fund for support of coordination efforts for the Partnership.
3. Explore opportunities for dedicated government or private funding to the Middle Mississippi River Partnership to provide for a sustainable partnership and regional effort, i.e. federal/state appropriations, endowment fund, etc.
4. Contact foundations and corporations to solicit funding for continuing MMRP coordination support.

Aquatic Habitat

Outcome: Healthy and diverse aquatic species populations through habitat restoration, development, management and/or land protection.

Challenges or obstacles to addressing aquatic habitat in the corridor:

- Conflicting regulations and rules for government programs are not always compatible with good resource management.
- Not enough authorities to adequately carry out programs that are currently available.
- Conflict as to what is highest and best use. Navigation versus fisheries for example.
- Landownership patterns not conducive to meeting objectives, i.e. adjacent property impacts from certain types of natural resource projects.
- Hesitancy of landowners to enter into conservation easements.
- Negative feeling towards public lands and negative impacts of removal of land from local property tax roles.
- Presence of major contaminants prohibit or limit restoration in some cases.
- Lack of funding to carry out habitat protection and restoration activities.

- Lack of technical assistance and land management staff on public lands.
- Invasive species and negative impacts on aquatic species.
- Urban development and associated off-site impacts of pollution.
- Scattered individual conservation projects and the resulting impact on the natural resources.
- No clear idea of the extent of resource renovation or protection needed and what level of quality is desired or needed for resource protection and sustainability.
- Dredging and potential negative impacts on aquatic habitat.
- Landowners and others not fully understanding the programs that are available for habitat protection and water quality improvement.

Goal 1: Protect existing aquatic habitat through conservation easements, land acquisition from willing sellers, use of tax incentives, and other programs to assist private landowners.

Targets: Create over wintering habitat every 5-7 miles within next 20 years.

 Create off channel habitat every 5-7 miles within next 20 years.

 Identify species that are over winter habitat limited within 3 years.

Objectives:

A. Use Middle Mississippi River Side Channel Report to determine priorities for protecting side channel areas.

Strategies:

1. Review the existing Middle Mississippi River Side Channel report to see if it is still valid and revise or modify as needed.
2. Develop strategies to address other types of aquatic species not specifically listed in the Middle Mississippi River Side Channel report.
3. Address in-channel aquatic habitat with restoration and protection efforts, not just the side channels.
4. Utilize stone dike alteration plan as a source of potential restoration areas.
5. Evaluate backwater habitats and potential for protection and restoration for certain species.
6. Identify spawning, nursery, and foraging habitat for selected species.

B. Provide over wintering habitat every 5-7 miles in the Middle Mississippi River.

Strategies:

1. Identify existing wintering habitat along the MMR corridor along with a determination of adequacy of that habitat to meet the needs.
2. Identify what species are currently habitat limited and develop criteria for determining level of adequacy for over winter habitat.
3. Identify specific application of what habitat will do and what species are impacted.

C. Provide diverse off channel habitat every 5-7 miles in the Middle Mississippi River.

Strategies:

1. Re-evaluate the Middle Mississippi River Side Channel report to determine if the data and conclusions are still valid.
2. Incorporate FWS and COE work on pallid sturgeon into the Middle Mississippi River Side Channel report.
3. Develop plans and projects that will provide the selected species access to the habitat that is being protected or restored.
4. Determine the level of public access that is appropriate for off-channel habitat areas.

Goal 2: Restore healthy and diverse aquatic habitat.

Objectives:

A. Rehabilitate or create side channels using priorities established in the Middle Mississippi River Side Channel Report.

Strategies:

1. Review the Stone Dike report to evaluate potential side channels for restoration.
2. Re-evaluate the Middle Mississippi River Side Channel report to determine if the data and conclusions are still valid and make revisions or modifications as needed.
3. Determine the feasibility of creating an island/side channel complex within river mile 80 to 90.

B. Identify side-channels where woody structure is needed and implement a plan incorporating a variety of designs to provide woody structures within open river side-channels.

Strategies:

1. Identify what is benefited and why these types of structures are needed and explain the goals of using woody structures in side channels.
2. Identify all types of habitat where woody structures are applicable.

C. Maintain communications between industry and state/federal agencies charged with environmental management along the Middle Mississippi River.

Strategies:

1. Continue to support MMRP efforts to maintain and improve communications among Partners, communities, and citizens.
2. Develop outreach programs to reach the transportation sector, SWCDs, and Drainage and Levee Districts in the MMR corridor.
3. Develop messages that are tailored to the audiences and are easy to understand when communicating on aquatic habitat needs and issues.

Goal 3: Management of aquatic resources to ensure sustained values and functions and a diversity of native species in the corridor.

Objectives:

A. Develop and implement a monitoring program that provides information needed for evaluating the health and diversity of aquatic species and habitat in the corridor.

Strategies:

1. Develop a definition of the monitoring program that is needed in the corridor to address aquatic habitat and identifies the appropriate items and parameters to monitor.
2. Use existing programs effectively and efficiently to address the aquatic habitat needs.
3. Utilize outside sources to develop monitoring strategies for aquatic habitats and to help implement monitoring activities.
4. Encourage agencies to support monitoring efforts as part of program implementation to help evaluate the impacts and benefits of various efforts and activities.
5. Utilize the results of monitoring efforts to help guide program planning and implementation in other areas and regions.

B. Identify channel sites with chronic dredging needs and seek alternatives for reducing sediment accumulation, and thus need for dredging, over the next 10 years.

Strategies:

1. Look at all dredging sites and balance remediation against associated impacts on aquatic habitats.
2. Develop a definition of “chronic” and what the objective means to maintaining ecologically sustainable alternatives.

C. Develop and implement an invasive species plan for aquatic habitat.

Strategies:

1. Implement the FWS Asian Carp management plan.
2. Address zebra mussels and Round Goby.
3. Develop outreach materials on non-native invasive species control and the programs available.
4. Manage floodplains wetting and drying cycles to benefit selective plant communities.

D. Establish targets for the extent of resource protection needed and quality criteria related to adequacy of resource protection.

Strategies:

1. Create a task force to establish quality criteria and targets for resource protection among the MMR stakeholders.
2. Utilize the MMRP as a regional driver for collaborative developed criteria and targets.

Water Quality

Outcome: Water quality acceptable for its intended use and purposes.

Challenges or obstacles to addressing water quality in the corridor:

- Individual projects not being implemented using a watershed approach so benefits and effects are scattered throughout the region.
- Different agencies have different regulatory authorities.
- Agency can act only on lands in their jurisdiction.
- Landowner’s practices and traditions often impede measures to improve water quality.
- Stakeholders in a watershed/community have goals that are in conflict with water quality improvement.
- Lack of information getting to landowners and decision-makers on water quality improvement methods.

- “Turf” battles between agencies can inhibit program implementation and planning.
- Lack of agreement on water quality baseline information and other water quality data and water quality standards differ across state boundaries.
- Lack of information on the status and impact of TMDLs in the corridor.
- Urban development and aging infrastructure contribute to water quality degradation.
- Agriculture expanding onto marginal lands and CRP going back into production.
- Some programs are limited to addressing pollutants that have a numeric standard in TMDLs.
- Difficulty in regulating non-point sources of pollution.
- Lack of baseline contaminant data or awareness of existence of such data.

Goal 1: Water quality maintained and protected from degradation through (point and) non-point source pollution.

Objectives:

A. Utilize wild lands vegetation and practices and programs to improve water quality.

Strategies:

1. Identify areas within the corridor that are contributing to water quality degradation and provide that information to the regional stakeholders.
2. Utilize forest buffers to maintain and improve water quality.
3. Utilize technical assistance programs and cost-share programs of stakeholders.
4. Utilize forestry management programs to address water quality.
5. Utilize watershed management programs to develop watershed plans to address water quality issues in the corridor.
6. Investigate dedicated funding sources for soil erosion and water quality initiatives to ensure sustained technical assistance and voluntary incentives.
7. Utilize Farm Bill and other programs to address soil erosion, nutrient management, and pest management.

B. Encourage application of conservation practices that address nutrient management and effective and efficient use of fertilizers and manure to reduce nitrogen and phosphorus.

Strategies:

1. Utilize CSP, EQIP, and other USDA land treatment programs to assist landowners in addressing water quality objectives.
2. Encourage development of watershed plans to identify and address water quality issues in the corridor.

3. Coordinate water quality efforts with upper and lower sections of the Mississippi River.
4. Encourage detention ponds in urban areas, erosion and sedimentation control, and low impact urban developments to help reduce water pollution.

C. Seek opportunities to utilize wetlands for filtering pollutants and reducing nitrogen and phosphorus in runoff water.

Strategies:

1. Utilize wetlands for wastewater treatment.
2. Identify areas of opportunity for wetlands, temporary water storage, edge of field wetlands for filtering, etc. at the ends of drainage ways.
3. Utilize easement programs with landowners such as WRP.
4. Utilize floodplain restoration to provide for wetlands.
5. Create wetlands using landowner programs and easements
6. Develop/utilize monitoring programs to determine wetland effectiveness.
7. Utilize regulatory programs to address water quality issues and prevent pollution for certain activities.
8. Include groundwater in water quality assessments and utilize programs to address groundwater.
9. Look at heavy metals and fecal coliform in addressing water quality issues.
10. Utilize well sealing programs to help reduce water pollution.

Goal 2: Restore water resources that have been affected by sedimentation and other water quality pollutants.

Objectives:

A. Continue current and develop new partnerships with government agencies, NGO's, and private landowners to reduce the effects of erosion and contaminant runoff affecting fish and wildlife resources.

Strategies:

1. Develop a common water quality database that can be used by all agencies and both Illinois and Missouri.
2. Encourage agencies to fund and staff dedicated to outreach and marketing activities to reach landowners and the general public.
3. Develop relationships and work with local governments on land use planning issues affecting water quality.
4. Develop outreach program on conservation subdivisions and the associated community benefits.

5. Develop outreach plan to encourage better regional interaction with groups like the MMRP and local government, industry, municipalities, and other groups.
6. Encourage the development of local small watershed plans in the corridor.

B. Focus program efforts to address state listed impaired streams to help improve water quality and restore intended uses of those waters.

Strategies:

1. Develop an inventory of 303(d) listed streams and water bodies in the corridor.
2. Target 319 funds to watersheds with TMDL plans developed.
3. Develop a list of all TMDLs already developed in the corridor and distribute to partners.
4. Utilize volunteer programs such as “Stream Teams” and “Earth Team Volunteers” to address project areas.
5. Utilize Sections 401 and 404 of the Clean Water Act to address water quality issues.
6. Develop EQIP special projects to address water quality issues in priority watersheds in the corridor.

C. Develop a monitoring strategy and process, tracking system, and progress reporting system for the MMR corridor.

Strategies:

1. Create a task force of specialists from stakeholder agencies and organizations to develop a monitoring plan.
2. Encourage the development and implementation of a monitoring program in the corridor to meet the stakeholder needs and then report progress according to that plan.

Recreation

Outcome: Increases in recreational areas/opportunities of adequate quality and quantity to meet the demands of the local communities and visiting citizens.

Challenges or obstacles to addressing recreation in the corridor:

- Hunting dates not compatible with local hunting club’s demands or objectives.
- Limited access to recreation opportunities in the corridor, i.e. boat ramps, parking, trail heads, etc.
- Hunting license and out of state limitations on obtaining a permit.
- Landowner liability issues related to visitors on private lands and potential lawsuits.

- Ability to quantify the economic impacts of recreation.
- Difference in state laws relating to recreation and what is allowed in IL and MO.
- The southern part of the corridor is perceived as biking unfriendly.
- Uncertainty about the status and availability of bike trails in southern part of the corridor.
- Liability issues relating to recreation signage in the area.
- Lack of coordination of “safe” bikeways with transportation corridors, i.e. roads, railroads, etc. Bikeways on roadsides may not be safe.
- Lack of funding for recreation opportunities.
- National Scenic By-Way is often regarded as a negative asset when in fact it is a positive influence on recreation.
- Public is not aware of what opportunities are currently present for recreation in the corridor.
- Landowner perceptions that more recreation will negatively impact their lands and lead to trespass issues, damages, liability, etc.
- Local people do not want visitors on some public property because of fear of damage to their private property.
- Lack of funding for operation and maintenance of recreation facilities.
- Public lack of awareness as to what people can and cannot do in the corridor.
- Lack of education and outreach efforts due to funding.
- Lack of opportunities on the river for recreation and lack of access points.
- Lack of enough public lands for recreation in the corridor.
- Lack of support facilities for water craft on the river.

Goal 1: Provide natural resource based recreation opportunities where appropriate and improve the quality and safety of the recreational experience.

Target: By 2011 conduct a regional conference between natural resource agencies and non-traditional partners in order to develop a working relationship on development and promotion of regional recreational opportunities.

Objectives:

A. Enhance and increase opportunities for visitor experiences involving wildlife observation and photography.

Strategies:

1. Identify the best practices to implement to help promote recreation opportunities in the corridor.
2. Provide more information on where outdoor recreation opportunities exist.
3. Provide more centralized contact points for finding out about recreation opportunities in the corridor and coordinate efforts with the partners.

4. Work with Audubon to identify opportunities and obtain data they have developed on bird watching, etc.
5. Improve coordination between the MMR partners, stakeholders and local tourism bureaus, chambers of commerce, historical societies, Mississippi River Parkway Commission, etc. to promote tourism and recreation.
6. Develop a better marketing plan and improved packaging of messages relating to recreation opportunities in the corridor and utilize MMRP web site to provide more centralized information on recreation opportunities.

B. Utilize programs to expand or enhance hunting and fishing opportunities on public and private lands in the corridor.

Strategies:

1. Utilize brokers to match hunters with appropriate landowners and hunting experiences, i.e. web site to provide this linkage.
2. Provide fee hunting workshops to provide information on hunting and hunting opportunities.
3. Promote agri-tourism in the region in cooperation with other organizations.
4. Develop an inventory of hunting and fishing opportunities, programs that enhance hunting and fishing in the corridor, highlights of the economic benefits of hunting and fishing, and make the information available through web sites and other methods.
5. Promote "Take me fishing" days when no license is needed and increase the number of fishing tournaments on the river.
6. Develop a better marketing plan and improved packaging of messages relating to recreation opportunities in the corridor.
7. Provide better access to the river and to lakes for fishing.

C. Recognize, support, and promote all recreation opportunities in the corridor.

Strategies:

1. Support businesses that are related to recreational opportunities in the corridor.
2. Apply for grants to help expand recreation opportunities in the corridor.
Inventory the following recreation opportunities in the corridor to determine extent and gaps.

Camping, hiking, and bird watching
 Bikeways
 Horseback riding
 Off road vehicles and ATVs
 Boating, canoeing, etc.
 Agri-tourism including wineries
 Self-guided tours, auto tours, and geo-caching
 Nature centers

Historic sites, barns, buildings, landmarks
Scenic by-ways
Wilderness and wild areas
Hunting, fishing areas
Wildlife viewing and photography

3. Inventory the natural, scenic, cultural, and historic capital in the corridor that can be used as the basis to market and promote recreation and tourism.
4. Expand facilities on the river and make opportunities available for river boat stops along the main channel.
5. Develop outreach materials to market the comprehensive nature of recreation opportunities in the corridor.

D. Monitor public use to ensure compatibility with natural resource sustainability, visitor satisfaction/safety, and outreach effectiveness.

Strategies:

1. Utilize current agency programs and efforts to monitor public use of facilities and opportunities in the corridor and report finding to all stakeholders annually.
2. Conduct a baseline inventory of recreation visits and other performance measures to establish current level of quality and extent of use of resources in the corridor
3. Conduct surveys of people to gather customer feedback on recreational experiences in the corridor.
4. Conduct traffic counts, visitor counts, etc. of recreational visits.
5. Compile regional information on the quality and extend of use of recreational facilities in the corridor and share with stakeholders for future planning purposes.

Goal 2: Improve public access to recreational opportunities in the corridor and to the river where appropriate.

Target: Develop MMR public access inventory by 2010 and provide to the public in highly visible ways.

Objectives:

A. Inventory current access points, determine where new access is needed, and evaluate options for providing access on the average of every 10 to 20 miles on both sides of the river.

Strategies:

1. Inventory current access points, determine where new access is needed, and evaluate options for providing access on the average of every 10 to 20 miles on both sides of the river.
2. Review current River Projects Master Plan to determine needs and opportunities for access points.
3. Review navigation charts to help determine access points.
4. Develop a plan and improve existing access points, signs, lighting, facilities, etc.
5. Utilize existing programs to provide for access points and develop facilities along the river.
6. Coordinate efforts with the regional tourism destinations, like the Great Rivers Museum, to provide more public education and outreach opportunities.

Transportation

Outcome: Transportation systems in the corridor that contribute to social/economic sustainability in the region to include industry needs, tourism, recreation, river navigation, and environmental protection.

Challenges and obstacles in addressing transportation issues in the corridor:

- Bureaucratic organizational structures and “stovepipes” that inhibit lateral discussions among agencies and organizations.
- Different rules, agencies, laws, and statutes between Illinois and Missouri relating to transportation and natural resources.
- Many transportation and natural resource management plans have already been completed without the needed cooperation and collaboration to provide for maximum benefits to the community.
- Funding not available for projects and activities to help address transportation and natural resource issues.
- Staff not available and workloads too heavy to allow for the degree of interaction and collaboration that is desired to enhance natural resources along with transportation improvements.
- Projects are often driven by specific program requirements versus being able to look at the larger impacts within the corridor or the community.
- Mitigation takes extra time and effort to implement when using in conjunction with at specific project.
- Getting the right people involved in coordination of activities and projects is sometimes difficult.
- Political influences have an effect on the outcome of some projects and activities.
- General public may not understand what the various partner agencies and organizations do in the corridor.

- Getting the public involved and engaged in issues when they do not feel directly affected or impacted, especially when looking at the larger issues and regions in the corridor.
- Lack of agreement on priority natural areas needing protection.
- Projects take time to implement and staff turnover can be high.
- General lack of coordination among the entities in the corridor on transportation and natural resource issues.
- Lack of understanding of the multiple issues and impacts relating to transportation projects and activities in the corridor.
- Competing use question of what is the “highest and best” use of a resource and the different perspectives involved.
- Coordination with county and township road districts and departments.
- Lack of knowledge of the status of railroad right of way including who to contact, what is active vs. abandoned, etc.
- Contacts with utility companies have been minimal in the past by stakeholder agencies and organizations.
- Limited involvement by stakeholders in emergency response planning in the corridor.

Goal 1: Future coordination and integration of planning of projects and activities among all the entities interested in transportation, land use, and natural resources in the corridor in order to balance the economic, social, and environmental impacts.

Objectives:

A. Improve coordination and communication efforts between the regional stakeholders and the transportation sector in the corridor.

1. Utilize Soil and Water Conservation Districts as a vehicle to reach local governments, local landowners, and local communities regarding natural resource issues and transportation needs.
2. Utilize East-West Gateway as a data source for transportation projects and for associated resource data relating to economic and social factors in the corridor.
3. Encourage early local input and coordination on planning of river facilities along the corridor.
4. Utilize the MMRP as a regional collaboration vehicle between natural resource agencies and the transportation sector.

B. Improve outreach and information efforts to provide information to landowners, communities, organizations, and other stakeholders on the benefits of transportation systems associated with good resource management.

1. Develop customized information sheets for each of the five reaches in the corridor to highlight the natural resource issues and concerns and the relationships to transportation systems.
2. Place resource maps and proposed transportation projects on the sites like the MMRP website to facilitate information exchange and improve public outreach.
3. Utilize the IDNR web site (ECOCAT) for project planning.
4. Sponsor forums for providing information, building networks, and enhancing outreach to the transportation agencies and organizations in the corridor.
5. Have the MMRP and its partner agencies present at future East-West Gateway meetings to highlight regional mission, goals, and objectives and begin to establish relationships with transportation sector.

Targets: Conduct a regional meeting between natural resource agencies and groups and transportation interests within the next year in an effort to develop more formal relationships.

Develop customized information sheets for each of the five reaches while finishing the reach plans and place the information on the MMRP website within the next year.

Place resource maps in highly publicized locations like the MMRP website within the next year.

Goal 2: Transportation systems constructed to provide economic and social benefits to the community and region while protecting or enhancing the environment and natural resources in the corridor.

Objectives:

- A. Develop and share resource data that will facilitate the process of enhancing environmental benefits associated with new transportation systems in the corridor.
 1. Conduct an inventory to determine what transportation system improvements are already planned or proposed in the corridor.
 2. Develop an inventory of all types of transportation projects where MMR Regional Plan goals could also be addressed and discuss with IL and MO DOTs.
 3. Develop a map of sensitive areas in the corridor that need protection and provide to transportation agencies, businesses, and organizations. Place on the MMRP web site.
- B. Promote planning, design, and construction concepts that will take natural resource data and impact into consideration in new transportation systems.

1. Highlight the importance of sharing and using resource data early in the transportation system planning process so that environmental issues can be addressed. Encourage pre-planning reviews of data to facilitate the project planning process and avoid negative environmental and/or social impacts. For example, identify shoreline facilities along the river and other facilities that could be helpful in planning.
2. Promote the use of the HGM study and data to help address environmental considerations in transportation system planning, mitigation, etc.
3. Promote context sensitive solutions and safe designs to construction of transportation systems that minimize environmental impacts and expedite the permitting process.
4. Incorporate recreation opportunities into transportation system plans through early communication with DOTs.
5. Engage groups like the Great Rivers Greenway and Metro East Park District in addressing recreation opportunities associated with transportation systems.

C. Facilitate distribution of information that can be used to ensure economic, social, and environmental benefits are incorporated into new transportation systems in the corridor.

1. Expand the MMRP Web site capability and place interactive data bases/maps on the web site by reach and include sensitive areas, soils, natural areas, etc.
2. Promote smaller town life and the expanded facilities needed.
3. Identify the regional needs which can be supported by the MMRP website and develop plan for full implementation of the site.

Target: Improve the functionality, agency utility, and regional awareness of the MMRP website within two years.

Goal 3: Transportation systems managed and maintained in a manner that meets their intended purpose and protects or enhances the natural resources, environment, and other land uses in the corridor.

Objectives:

A. Dredging activities conducted in a manner that provides for adequate river transportation and protects or enhances the natural resources in the corridor.

1. Evaluate and promote alternative beneficial uses of dredging spoil. Consider cost-share of some items, support by beneficiaries, communication plan, etc.
2. Continue planned structural program to minimize the need for dredging in the river channel and other areas.
3. Have COE discuss dredging options at future MMRP and other agency/organization meetings to increase awareness of multiple benefits and other options.

4. Encourage more funding for environmental dredging activities to ensure environmental benefits are attained in the corridor.
- B. Projects managed, renovated, or maintained as needed in order to fulfill their intended purpose and resource need.
1. Identify current resource problems associated with current transportation systems and discuss with applicable transportation agency or organization, i.e. flooding, wetlands, drainage, water quality, etc.
 2. Support appropriations for funding for components in the Water Resources Development Act.
- C. Highway and railroad systems that are managed and maintained to meet multiple resource goals and to provide adequate transportation for the community and region.
1. Encourage practical designs for renovation or maintenance that provide natural resource benefits, i.e. fish passages.
 2. Encourage more ecosystem approach planning by railroads and Departments of Transportation.
 3. Encourage control of non-native invasive species on highway and railroad lands.
 4. Work with local Soil and Water Conservation Districts in regard to local resource issues related to highways and utilize their abilities and expertise in working with DOTs and county highway departments.

Information and Outreach

Outcome: Recognition and support of the region's vision, programs, and services.

Challenges and obstacles in addressing information and outreach issues in the corridor:

- There are many diverse messages that need to be delivered to audiences in the corridor and these audiences and associated key messages have not been identified.
- Lack of awareness of the types of media and information outlets available in the corridor.
- Lack of adequate funding for information and outreach efforts and activities.
- Lack of coordination for overall stakeholder activities.
- No process currently being used to jointly focus information programs of the stakeholders in addressing natural resource issues in the corridor.
- Differing agency missions and ability to support some specific activities relating to information and outreach.
- Complexity of overall resource issues in the corridor and how each issue fits into the overall economic, environmental, and social structure of the region.

- Lack of awareness of the strengths and benefits of the collaborative groups like MMRP.
- Lack of packaging the messages to audiences to get the best effect and not having the key messages fully developed.
- Turf issues among agencies and organizations sometimes detract from promotion and outreach efforts.
- Public indifference as to why they should be concerned about resource issues in the corridor.
- Difficult to get messages to urban audiences that are not related to the land.
- Some landowners and citizens do not trust some of the regional agencies and organizations which make information and outreach more difficult.

Goal 1: Conservation education/information programs effectively implemented that instill a stewardship/management ethic and result in wise use of natural resources in the corridor.

Objectives:

A. Identify and inventory activities and projects that are restoring habitat and addressing resource issues in the corridor in order to provide positive examples to the public of the benefits of resource protection and enhancement.

Strategies:

1. Utilize the collaborative power of the MMRP to become one of the major natural resource information and outreach entities for the region.
2. Develop “tag” lines for mission and vision statements so the audiences can grasp the theme and focus on the natural resources in the corridor.
3. Continue to prepare an annual report for the MMRP that highlights the benefits of the projects and activities that have been planned and implemented. Coordinate the development of the report to highlight the various agencies involved in each activity. Include both past and present accomplishments to highlight the impact the MMRP agencies, and other stakeholders, are having on the region.
4. Develop electronic newsletter to send to outside groups, organizations, legislators, etc. to keep them posted throughout the year of regional accomplishments and activities.
5. Continue development of the MMRP web site and have links to other agencies and topics of interest. Post newsletters, brochures, publication, all outreach documents, etc on the web site along with other applicable material.
6. Use the MMRP logo on all printed material and be consistent in format and use of logo on annual report, newsletter, reports, etc. so audiences will begin to associate regional progress with the MMRP.
7. Include information about the MMRP in all on-going activities and outreach efforts of partnering agencies and groups.

8. Develop posters, magnets, and other material with MMRP website, phone number, etc. to increase awareness and interest in the MMRP and Mississippi River issues.
9. Conduct special events for promotion of the Mississippi River and MMRP messages and to build relationships with outside audiences and groups.
10. Develop a display for the MMRP and make available to agencies and partners for use at meetings, conferences, etc.
11. Develop relationships with TV, newspaper, radio, and magazine media to promote awareness of Mississippi River and MMRP messages.
12. Develop a video on the MMRP to put on web pages to highlight the vision and mission of the MMRP and its' partner agencies.
13. Update the MMRP information brochure for general use and include the logo, web site, key messages, and benefits of collaborative partnership. Also develop a "rack" card with web site and brief messages to catch attention and direct audiences to the web site. Maintain consistency in logo, messages, etc. in various materials.
14. Identify capabilities of partners relating to information and outreach activities and the availability of time to assist with MMRP activities and projects. Identify agencies and groups who can assist in supporting the MMRP web site.

B. Enhance the education and interpretive program on public land by providing visitors key resource messages through contact stations, kiosks, interpretive panels, educational programs, and special events.

Strategies:

1. Install interpretive signage on public lands as needed to facilitate public use. Include MMRP logo on signs as appropriate.
2. Install touch screen kiosks and other displays at rest stops to enhance the recreation opportunities of visitors to public lands.
3. Provide opportunities for downloadable information to IPODs regarding self guided tours and trail, points of interest, scenic views, historic sites, etc.
4. Develop key messages relating to the MMR corridor to be presented.
5. Contact others organizations and agencies who have developed interpretive centers on public lands to solicit ideas for new projects and opportunities in the corridor.
6. Place references to public lands education opportunities on the web sites of agencies and the MMRP.

C. Enhance outreach through education and interpretive programs for schools, youth, civic and conservation groups to increase understanding and appreciation of natural resources on the river corridor and monitor results to ensure effective outreach.

Strategies:

1. Get representatives of natural resource agencies, groups and other regional stakeholders listed on Speakers Bureaus to make presentations on the resource issues in the corridor and on collaborative efforts, like the MMRP, which are attempting to address those issues.
2. Conduct teacher's workshops for schools in the corridor to get out the messages relating to natural resource issues in the region.
3. Utilize County level Agricultural Literacy Coordinators and Environmental Education Coordinators to help convey the key messages and to highlight the resource needs on the MMR corridor.
4. Make contact with the following to establish relationships for future outreach and information efforts in the corridor:
 - Living Lands & Waters
 - UMR Conservation Committee
 - Audubon Societies in the area
 - Sierra Club
 - Memco Barge
 - Great Rivers Research and Education Center
5. Develop a plan relating to special events and who will be involved. Some
 - Tree Planting – Arbor Day
 - Volunteer Activities
 - Hunting and Fishing Days
 - Earth Day
 - It's Our River Day

Goal 2: Provide key leaders and legislators with an understanding and appreciation of the economic, environmental, and social benefits derived from use of all the resources in the corridor.

Objectives:

A. Develop information outreach materials to highlight the benefits of resource use in the corridor and provide to interested citizens, local leaders, and legislators.

Strategies:

1. Have the MMRP continue to develop and distribute a regional annual report for legislators and interested publics.
2. Develop "rack" cards with web site and phone number for MMRP.
3. Utilize local tourism locations, like the Great Rivers Museum, as a resource to facilitate outreach and information efforts. Include MMRP display at the museum.

4. Establish a link between MMRP activities and the Mississippi River Commission activities to highlight the needs in this corridor and feature the benefits of the collaborative partnerships.
5. Develop a directory of services, programs, and contacts for the agencies and organizations in the MMRP as well as regional stakeholders and provide to legislators, key leaders, and others to serve as a ready reference for assistance.
6. Develop posters and post cards with the MMRP logo and key Mississippi River messages.

B. Conduct partnership tours and other outreach efforts for leaders and legislators to demonstrate and highlight the benefits and values of the natural resources in the corridor and the successes of program efforts in addressing these resources.

Strategies:

1. Conduct tours for legislators and aids to highlight needs and project accomplishments in the corridor.
2. Emphasize the value of collaborative partnering to legislators, legislative aids, and key leaders, through forums like the MMRP annual meeting.
3. Make personal visits to legislators for briefings on regional activities and needs or host a legislative workshop for legislators and aids to provide an opportunity for regional entities to make presentations on corridor needs, highlighting accomplishments of collaborative efforts and partnerships.

Goal 3: MMRP members and other regional entities working in a cooperative, mutually supportive effort to promote programs and initiatives to address the resources in the corridor.

Targets: Have functional MMRP website within 2 years.

Have full-time staff coordinator position for MMRP within 3 years.

Objectives:

A. Set up a web site for the Middle Mississippi River Partnership to highlight regional issues, the Partnership, the Middle Mississippi River Regional Plan, the outputs of the COE planning study, and the collaborative efforts of the region.

Strategies:

1. Make the current MMRP web site more user friendly and more public friendly. Include more links form other sites to the MMRP site.

2. Provide more opportunities for the public to obtain the MMRP web site address other than on-line. Develop posters, cards, magnets, etc. that would provide the logo and the web site.
3. Develop interactive education modules for children to use on the MMRP web site to gain an understanding of the river system, the natural resource issues, and the ecosystems in the corridor.
4. Place all the MMRP brochures, reports, publications, etc. on the web site.
5. Develop proposals for continued funding to develop and maintain the MMRP web site. Consider proposals to private companies, foundations, National Great Rivers Resource Center, World Shooting Complex, etc.
6. Utilize an intern or Americorp position to help develop the materials and linkages for the MMRP web site.

B. Establish a Partnership staff position to serve as a focal point for information and outreach to the public on issues relating to all of the partners.

Strategies:

1. Utilize an intern to work on specific projects, develop grant proposals, and assist with coordination efforts relating to the MMRP.
2. Create endowments for the MMRP to provide opportunity for contributions dedicated to coordination assistance and project funding.
3. Contact Living Lands and Waters to determine what assistance might be available to the MMRP.

C. Emphasize the need for technical assistance as a critical component in helping to address the resource needs in the corridor.

Strategies:

1. Better define what is meant by “technical assistance” and whether it applies to public lands as well as private lands. Determine what key message is desired when emphasizing the need for technical assistance.

Non-Native Invasive Species

Outcome: Prevention, early control, eradication, and management through partner cooperation.

Goal 1: Early control and prevention measures utilized by all partners to minimize establishment of non-native invasive species.

Objectives:

A. Conduct inventory of current programs, information, and materials available to help address invasive species in the corridor.

1. Develop summary and distribute to all stakeholders in the region.
2. Place information materials on MMRP web site and other stakeholder sites.

B. Coordinate programs, activities, and information exchange on invasive species to provide for more effective and efficient prevention and control in the region.

1. Provide outreach and utilize information programs to encourage the prevention and control of invasive species in the corridor.
2. Implement activities to help prevent and control invasive species on public lands.
3. Provide technical assistance and information to private landowners to help them prevent and control invasive species.

Appendix A

MMR Program Types

Conservation Easement Programs

One method of protecting valuable habitat could be through the use of conservation easements on lands the private owners wish to protect. Conservation easements are agreements that set restrictions of varying levels on lands to protect their associated resources. They can restrict types of land use or even development. Easements are often in perpetuity, but can often be for only a limited period of time. There are numerous types and can be obtained through several agencies. Each easement type has unique attributes making it easier to find one that suits the landowners' interests and needs.

Grant & Cost Share Programs

There are numerous grant and cost share programs available for both agencies and private landowners. Agencies can use these programs to help fund their restoration projects. Landowners can also use these programs to help fund their own private restoration efforts if they choose to do so.

Land Acquisition Programs

Any program for land acquisition would be for putting lands into public ownership. Any land acquisition would be from willing sellers only.

Technical Assistance Programs

Many agencies and organizations have technical assistance programs that are applicable to public and private lands assistance. These programs allow agency personnel with technical knowledge to assist private landowners with natural resource questions, issues, or problems that they may have on their property.

Education Programs

Education is a fundamental element of success in attaining the goals of the Middle Mississippi River Regional Plan. It is necessary to help the public understand what the regional issues are, what partnerships like the MMRP are really about, and why their work is so important. The public is an integral part in working towards the completion of these goals.

Land Banking Initiatives

Several options currently exist for private individuals to profit from the preservation of their lands. Some of these include:

Wetland Mitigation Banks

A wetland mitigation bank is a wetland, stream, or other aquatic resource area that has been restored, established, enhanced, or (in certain circumstances) preserved for the purpose of providing compensation for unavoidable impacts to aquatic resources permitted under Section 404 or a similar state or local wetland regulation. A mitigation bank may be created when a government agency, corporation, nonprofit organization, or other entity undertakes these activities under a formal agreement with a regulatory

agency (EPA). A private landowner can convert their land to a mitigation bank and then sell the rights to the land to an entity needing to compensate for their impacts to aquatic resources.

Carbon Banks

The Illinois Conservation and Climate Initiative (ICCI) is a joint project of the State of Illinois, the Association of Illinois Soil and Water Conservation Districts, and the Delta Institute that allows farmers and landowners to earn green house gas emissions credits when they use conservation tillage, plant grasses and trees, or capture methane with manure digesters. These practices keep carbon out of the atmosphere while providing other environmental benefits such as the creation of wildlife habitat and reduced run-off from fields.

The Chicago Climate Exchange (CCX®) allows greenhouse gas benefits from conservation practices to be quantified, credited and sold. The credits are aggregated, or pooled, from many different producers and landowners by the Delta Institute, which is a non-profit organization that is partnering with the State on ICCI. Credits are sold on the Chicago Climate Exchange trading platform to CCX® members that have made voluntary commitments to reduce their greenhouse gas contributions.

Enrollment in ICCI is similar to other conservation programs, such as the CRP, CSP and CREP, and requires some of the same forms. Landowners can enroll by contacting the Delta Institute or the local Soil and Water Conservation District office.

Nitrogen Banks

These banks would be the operated under the same concept as a carbon bank program.

Appendix B

Agency	Program	Type	Description	Cost Share	Website
American Land Conservancy	Conservation Easement	Conservation Easement	Agreement that limits uses of the land to preserve its conservation values	N/A	http://www.alcnet.org/projects/overview/mississippi
	Land Acquisition Program	Land Acquisition	Works with landowners who wish to sell or donate their exceptional land for conservation by finding a public agency or conservation buyer to own and manage the land permanently.	N/A	http://www.alcnet.org/projects/overview/mississippi
Ducks Unlimited	Demonstration/ Technical Assistance Projects	Technical Assistance	Projects for which DU provides on-site biological guidance or demonstrations to benefit waterfowl/wetlands management of an area.	N/A	
	Matching Aid to Restore State Habitat (MARSH) Projects	Grant & Cost Share	MARSH projects are those that use a portion of DU grass roots funds leveraged with matching funds from other organizations to enhance and restore habitat within each state.	50%	
	Conservation Projects	Technical Assistance	Conservation projects include wetland enhancements, grassland restoration, private land easements, etc. that are not a part of the MARSH program	N/A	
	Missouri Bootheel Partners Program	Technical Assistance	Technical and financial assistance to landowners interested in improving waterfowl status and wetlands quality on their lands in Southeastern	N/A	

			Missouri.		
EPA	Section 319 Grants	Grant & Cost Share	Grant money for activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of specific nonpoint source implementation projects	40%	http://www.epa.gov/OWOW/NPS/cwact.html
Forest Service	Forest Legacy Program	Conservation Easement	Helps the States develop and carry out their forest conservation plans and uses easements to protect private forest lands	25%	http://www.fs.fed.us/spf/coop/programs/loa/flp.shtml
	Forest Stewardship Program	Technical Assistance	The primary focus of the Program is the development of comprehensive, multi-resource management plans that provide landowners with the information they need to manage their forests for a variety of products and services	N/A	http://www.fs.fed.us/spf/coop/programs/loa/fsp.shtml
	Land Acquisition Program	Land Acquisition	A plan that discusses acquisition of land to meet federal conservation goals while remaining consistent with all federal agencies missions.	N/A	http://www.fs.fed.us/land/staff/LWCF/ntl_land_acq_plan.shtml
	Partnership Cost Share Programs	Technical Assistance	A website providing information on sources of funding for various	N/A	http://www.partnershipresourcecenter.org/resources/funding/index.php

			conservation and ecosystem projects.		
	State and Private Forestry	Technical Assistance	State and Private Forestry programs bring forest management assistance and expertise to a diversity of landowners, including small woodlot, tribal, state, and federal, through cost-effective, non-regulatory partnerships.	N/A	http://www.fs.fed.us/spf/coop/programs/loa/fsp.shtml
IDNR	Conservation Ecosystems Program 2000	Grant & Cost Share	A fund created to allow for cost sharing a variety of ecosystem restoration efforts in Illinois.	30%	http://dnr.state.il.us/OREP/c2000/
	Illinois Forestry Assistance Program	Grant & Cost Share	Provides technical assistance to NIPF landowners to manage their forests for multiple resources. In addition, cost-share assistance is available for landowners to implement forest stewardship practices	25%	http://dnr.state.il.us/conservation/forestry/programs.htm
	Illinois Nature Preserves Commission	Conservation Easement	Allows landowners to include nature preserve dedication, land and water reserve registration or enrollment as an Illinois natural heritage landmark.	N/A	http://dnr.state.il.us/INPC/

	Special Wildlife Funds Grant Program	Grant & Cost Share	Four special grant programs that are funded by Illinois sportsmen through the purchase of Habitat Stamps and Migratory Waterfowl Stamps. These are the Illinois Habitat Fund, State Pheasant Fund, State Furbearer Fund and the Migratory Waterfowl Stamp Fund. Together, these programs are designed to protect, acquire, enhance or manage wildlife habitat and to support limited research and educational programs to further advance this mission.	N/A	http://dnr.state.il.us/grants/Special_Funds/WildGrant.htm
MDC	Community Stewardship Grant Program	Grant	Provide support for open space management, wildlife habitat improvement, community land stewardship and to engage urban residents in community conservation through volunteer efforts to improve open space in the St. Louis Metro Area.	N/A	http://www.mdc.mo.gov/areas/stlouis/stew_grant.htm
	Landowner Assistance Program	Technical Assistance and Cost Share	Technical and financial assistance to private landowners desiring to improve their land for fish, forest and wildlife.	Variable by practice	http://mdc.mo.gov/landown/helpimprove.htm
	Tree Resource Improvement and Maintenance	Grant	Assistance to Missouri communities, schools and not-for-profit for tree planting and maintenance of their urban forests. Through this program, funds are available	N/A	http://www.mdc.mo.gov/forest/urban/TRIM/

			for communities to inventory, remove high-risk trees, train workers, prune and plant trees.		
	Forest Management Assistance	Technical Assistance	Advisory and management services to help private landowners manage their forest lands. Includes assistance in developing and carrying out a management plan for the property.	N/A	http://mdc.mo.gov/forest/products/mgmtasst.htm
	Conservation Field Trip Grants	Grant	Support to educators interested in taking students on field trips related to fish, wildlife and natural habitats.	N/A	www.mdc.mo.gov/teacher/grants/
	Outdoor Classroom Grant	Grant	Support to schools interested in developing or enhancing an outdoor learning site, either on school grounds or nearby.	N/A	www.mdc.mo.gov/teacher/grants/
	United Sportsmen's League Wildlife Conservation Grant	Grant	Support to Missouri FFA chapters interested in planning an on-site wildlife habitat project or exploring a collaborative effort with a local landowner.	N/A	www.mdc.mo.gov/teacher/grants/
	Community Assistance Program	Cost Share	USFWS and state support to communities interested in providing recreational fishing facilities.	25%	
NRCS	Conservation Reserve Enhancement Program	Conservation Easement	Voluntary land retirement program that helps agricultural producers protect environmentally sensitive land, decrease erosion, restore wildlife habitat, and safeguard ground and	50%	http://www.fsa.usda.gov/FSA/webapp?area=home&subject=copr&topic=cep

			surface water.		
Conservation Reserve Program	Rental	Voluntary land retirement program that helps agricultural producers protect environmentally sensitive land, decrease erosion, restore wildlife habitat, and safeguard ground and surface water.	50%	http://www.nrcs.usda.gov/programs/crp/	
Conservation Stewardship Program	Green Payment	Voluntary program that provides financial and technical assistance to promote the conservation and improvement of soil, water, air, energy, plant and animal life, and other conservation purposes on Tribal and private working lands.	100%	http://www.nrcs.usda.gov/programs/CSP/	
Conservation Technical Assistance	Technical Assistance	Provides the technical capability, including direct conservation planning, design, and implementation assistance, that helps people plan and apply conservation on the land.	N/A	http://www.nrcs.usda.gov/programs/cta/	
Environmental Quality Incentives Program	CIG & Incentive Payments	Voluntary conservation program for farmers and ranchers that promotes agricultural production and environmental quality as compatible national goals. EQIP offers financial and technical help to assist	Flat Rate	http://www.nrcs.usda.gov/PROGRAMS/EQIP/	

		eligible participants install or implement structural and management practices on eligible agricultural land.		
Emergency Watershed Protection	Floodplain Easement	Undertake emergency measures, including the purchase of flood plain easements, for runoff retardation and soil erosion prevention to safeguard lives and property from floods, drought, and the products of erosion on any watershed whenever fire, flood or any other natural occurrence is causing or has caused a sudden impairment of the watershed	25%	http://www.nrcs.usda.gov/programs/EWP/
Farmland Protection Program	Conservation Easement	Provides matching funds to help purchase development rights to keep productive farm and rangeland in agricultural uses. Working through existing programs, USDA partners with State, tribal, or local governments and non-governmental organizations to acquire conservation easements or other interests in land from landowners.	50%	http://www.nrcs.usda.gov/programs/frpp/

Grassland Reserves Program	Conservation Easement	Helps landowners restore and protect grassland, rangeland, pastureland, shrubland and certain other lands and provides assistance for rehabilitating grasslands. The program will conserve vulnerable grasslands from conversion to cropland or other uses and conserve valuable grasslands by helping maintain viable ranching operations.	10%	http://www.nrcs.usda.gov/programs/grp/
Plant Materials Program	Technical Assistance	Regional centers that offer a variety of technical assistance options and materials.	100%	http://plant-materials.nrcs.usda.gov/
Resource Conservation & Development	Technical Assistance	The purpose of the RC&D program is to encourage and improve the capability of volunteer local elected and civic leaders in designated RC&D areas to plan and carry out projects for resource conservation and community development.	100%	http://www.nrcs.usda.gov/programs/rcd/
Wetland Reserves Program	Conservation Easement & Cost Share	Provides technical and financial support to help landowners with their wetland restoration efforts. The NRCS goal is to achieve the greatest wetland functions and values, along with optimum wildlife habitat, on every acre enrolled in the program. This program offers landowners an opportunity to establish long-term	50-100%	http://www.nrcs.usda.gov/Programs/WRP/

			conservation and wildlife practices and protection.		
	Wildlife Habitat Incentives Program	Grant & Cost Share	Voluntary program for people who want to develop and improve wildlife habitat primarily on private land. Through WHIP USDA's Natural Resources Conservation Service provides both technical assistance and cost-share assistance to establish and improve fish and wildlife habitat. WHIP agreements between NRCS and the participant generally last from 5 to 10 years from the date the agreement is signed.	50-100%	http://www.nrcs.usda.gov/programs/whip/
Southern Illinois Community Foundation	Community Works Initiative	Grant & Cost Share (Endowment Building)	A community development and endowment building initiative that addresses Early Child Care and Education, Land Use and Protection and Workforce Development through a regional grant making program. For the next couple of years the grantmaking will focus on Early Child Care and Education and Land Use and Protection.	Some Challenge Granting	www.sicf.org

	The River Partnership	Grant & Cost Share (Partnership Building)	An inter-state partnership of community foundations which border the Mississippi River or its tributaries that focuses on building community awareness and building financial assets to address issues related to the Mississippi River Corridor.	Some Challenge Granting	www.sicf.org
SIU	Department of Forestry	Education		N/A	http://www.siu.edu/~forestry/
	Cooperative Wildlife Research Lab	Education		N/A	http://www.siu.edu/~wildlife/
The Conservation Fund	Land Conservation	Grant & Cost Share	Assists government agencies and nonprofit organizations to acquire and conserve land across the country - permanently protecting wildlife habitat, recreation areas, and open space.		http://www.conservationfund.org/
	Sustainable Programs	Grant & Cost Share	Marketing based solutions for challenging environmental issues - from integrating conservation and development to protecting natural resources to demonstrating innovative research and technology.		
	Leadership Training	Grant & Cost Share	Through courses, workshops and seminars provides technical assistance, financial resources and formal training.		

The Nature Conservancy	Conservation Buyer Program	Conservation Easement	Land is bought in critical conservation areas and appropriate conservation easements are designed for the land to protect natural features then the land is resold to individuals dedicated to the conservation of the land and supportive of the protective conservation easement.	N/A	http://www.nature.org/aboutus/howework/conservationbuyer/help/art11639.html
	Conservation Easements	Conservation Easement	Offers conservation easements for landowners wishing to participate.	N/A	http://www.nature.org/aboutus/howework/conservationmethods/private/conservationeasements/about/allabout.html?src=search
	Land Purchase Program	Land Acquisition		N/A	
Union County SWCD	Educational Center	Education		N/A	
USACE	Avoid & Minimize	Grant & Cost Share	Aquatic Ecosystem Restoration in the St. Louis District to compensate for increased traffic due to Lock and Dam 26 Expansion	0%	
	Awareness Programming	Education		N/A	
	Biological Opinion	Grant & Cost Share	Aquatic Ecosystem Restoration targeted towards the recovery of the Pallid Sturgeon population	0%	
	Congressionally Approved Projects	Grant & Cost Share	Aquatic Ecosystem Restoration	35%	
	Environmental Education Programs	Education		N/A	

Environmental Management Program	Grant & Cost Share	Aquatic Ecosystem Restoration in the Upper Mississippi River System	35%	
Great Rivers Museum	Education		N/A	http://www.mvs.usace.army.mil/Rivers/museum.html
NESP	Grant & Cost Share	Aquatic Ecosystem Restoration in the Upper Mississippi River System	35%	
Rivers Project Office	Education		N/A	http://www.mvs.usace.army.mil/rivers/
Section 204	Grant & Cost Share	In conjunction with dredging in projects, allow for the dredged material to be used for habitat creation & restoration	25%	
Section 206	Grant & Cost Share	Aquatic Ecosystem Restoration	35%	
Section 207	Grant & Cost Share	In conjunction with dredging in projects, allow for the dredged material to be used for habitat creation & restoration	25%	
Section 514	Grant & Cost Share	Aquatic Ecosystem Restoration in the Missouri and Middle Mississippi rivers and Floodplains with a compressed schedule compared to other authorities	35%	
Section 1135	Grant & Cost Share	The modification of a Corp project that is degrading the environment or repairs degradation of the environment caused by a Corp project	25%	
Water Resources	Education		N/A	

	Programming				
USFWS	Clean Vessel Act	Grant & Cost Share	To support construction and/or renovation of sewage pumpout and dump stations for recreational boats and to develop education programs	25%	http://www.fws.gov/grants/state.html
	Conservation Grants	Grant & Cost Share	Provides financial assistance to States and Territories to implement conservation projects for listed and non listed species, such as habitat restoration, species status surveys, public education and outreach, captive propagation and reintroduction, nesting	25% for single State or Territory; 10% for 2 or more States or Territories implementing a joint project	http://www.fws.gov/grants/state.html
	Cooperative Conservation Initiative	Grant & Cost Share	To restore natural resources and establish or expand wildlife habitat	50%	http://www.fws.gov/grants/state.html
	Cooperative Endangered Species Conservation Fund (Section 6 of the Endangered Species Act)	Grant & Cost Share	Provides financial assistance to States and Territories to participate in a wide array of voluntary conservation projects for candidate, proposed and listed species	25% for single State or Territory; 10% for 2 or more States or Territories implementing a joint project	http://www.fws.gov/grants/state.html
	Habitat Conservation Planning Assistance	Grant & Cost Share	Provides financial assistance to States and Territories to support the development of Habitat Conservation Plans (HCPs) that provide for the conservation of imperiled species while allowing economic activities to proceed.	25% for single State or Territory; 10% for 2 or more States or Territories implementing a joint project	http://www.fws.gov/grants/state.html

Habitat Conservation Planning Land Acquisition	Grant & Cost Share	Provides financial assistance to States and Territories to acquire land associated with approved Habitat Conservation Plans (HCPs) to secure protection of endangered and threatened species habitats and expand conservation benefits of HCPs.	25% for single State or Territory; 10% for 2 or more States or Territories implementing a joint project	http://www.fws.gov/grants/state.html
Invasive Species Risk Assessment	Grant & Cost Share	To support assessments to determine risk associated with intentional import of species to the U.S.	0%	http://www.fws.gov/grants/state.html
Landowner Incentive Program	Grant & Cost Share	A partnership grant program to assist private landowners in working to conserve and restore the habitat of endangered species and other at-risk plants and animals.	25%	http://www.doi.gov/initiatives/landowner_incentive_program.html
Multistate Conservation Grant Program	Grant & Cost Share	To support sport fish and wildlife restoration projects identified by the International Association of Fish and Wildlife Agencies	0%	http://www.fws.gov/grants/state.html

NAWCA Grants	Grant & Cost Share	Stimulates public-private partnerships to protect, restore, and manage wetland habitats for a diversity of migratory birds and other wildlife. It provides Federal cost-share funding to support the North American Waterfowl Management Plan and is a non-regulatory, incentive-based, voluntary wildlife conservation program	50%	http://www.ducks.org/Conservation/GovernmentAffairs/1616/NAWCAHome.html
Neotropical Migratory Bird Conservation Fund	Grant & Cost Share	To ensure neotropical bird conservation by supporting programs in the U.S., Latin America and the Caribbean; and to encourage international cooperation	75%	http://www.fws.gov/grants/state.html
Partners for Fish and Wildlife	Grant & Cost Share	Provides technical and financial assistance to private landowners and Tribes who are willing to work with USFWS and other partners on a voluntary basis to help meet the habitat needs of our Federal Trust Species	40%	http://ecos.fws.gov/partners/viewContent.do?viewPage=home
Private Stewardship Grants	Grant & Cost Share	Provides grants or other assistance on a competitive basis to individuals and groups engaged in private conservation efforts that benefits species listed or proposed as endangered or threatened under the Endangered Species Act, candidate species, or other at-risk species on private	10%	http://www.fws.gov/grants/conservation.html

		lands within the United States.		
Recovery Land Acquisition	Grant & Cost Share	Provides financial assistance to States and Territories to acquire habitat for endangered and threatened species. Acquisition of habitat to secure long term protection is often an essential element of a comprehensive recovery effort for a listed species.	25% for single State or Territory; 10% for 2 or more States or Territories implementing a joint project	http://www.fws.gov/grants/state.html
State Wildlife Grant	Grant & Cost Share	To develop wildlife conservation plans and on-the-ground conservation projects	planning grants- 25%; implementation projects - 50%	http://www.fws.gov/grants/state.html
Urban Treaty for Migratory Bird Conservation	Grant & Cost Share	To support a partnership agreement between the USFWS and a U.S. city to help conserve birds.	50%	http://www.fws.gov/grants/state.html
Wildlife Restoration Program	Grant & Cost Share	To support restoration and management of wildlife populations and provide public use opportunities	75%	http://www.fws.gov/grants/state.html

USGS	MMR Decision Support System	Technical Assistance	Provides a framework to assist decision makers regarding natural resource issues in the Middle Mississippi River floodplain. Designed to provide users with a spatially explicit tool for tasks such as inventorying existing knowledge, developing models to investigate the potential effects of management decisions, generating hypotheses to advance scientific understanding, and developing scientifically defensible studies and monitoring.	N/A	http://www.umesc.usgs.gov/management/dss/mid_miss_dss.html
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Appendix C

Identifying Conservation Priority Areas

Examination of HGM results, various data sources, and persons with “on the ground” knowledge will allow for identification of several priority areas inside each reach to work within. Working in these areas would include purchase from willing sellers, conservation easements, as well as encouraging existing uses consistent with using natural resources (hunting on farmland, flooding cropland for waterfowl, etc.) Some examples of available data sources are as follows:

Existing Plans Impacting the Middle Mississippi River Corridor

American Bottom River Corridor Resource Inventory, Southwestern Illinois RC&D

Legacy 2035: The Transportation Plan for the Gateway Region, E-W Gateway Council of Governments, June 27, 2007

Upper Mississippi River Fish Consumption Advisories: State Approaches to Issuing and using Fish Consumption Advisories on the Upper Mississippi River; Upper Mississippi River Basin Association, August 2005

National Fish Habitat: Action Plan

The Mississippi River in the Upper Midwest: Its Economy, Ecology, and Management; The McKnight Foundation, 1996

Upper Mississippi and Illinois River Floodplain Forests: Desired Future and Recommended Actions, Upper Mississippi River Conservation Committee; September 2002

Upper Mississippi River Fisheries Plan: 1994-2003; Upper Mississippi River Conservation Committee; September 1993

Upper Mississippi Watershed Partnership Action Plan; Northeastern Area and Midwest State Foresters, 2004-2008

A River That Works and a Working River; The Upper Mississippi River Conservation Committee, Published by The Upper Mississippi River Conservation Committee; Dan McGuinness, Editor; Page 14

Upper Mississippi River System: Habitat Needs Assessment, Summary Report 2000: US Army COE

Upper Mississippi River and Great lakes Region Joint Venture Implementation Plan, 2007

Upper Mississippi River and Great lakes Region Joint Venture Waterfowl Habitat Conservation Strategy, 2007

Upper Mississippi River and Great lakes Region Joint Venture Landbird Habitat Conservation Strategy, 2007

Upper Mississippi River and Great lakes Region Joint Venture Shorebird Habitat Conservation Strategy, 2007

Upper Mississippi River and Great lakes Region Joint Venture Waterbird Habitat Conservation Strategy, 2007

Missouri Comprehensive Wildlife Strategy and Wildlife Action Plan, 2007

Illinois Wildlife Action Plan, 2007

Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects

A Restoration Synthesis: Systemic Restoration Programs Affecting the Mainstem Mississippi River Basin and Louisiana Gulf Coast, 2006

An Evaluation of Ecosystem Restoration Options for the Middle Mississippi River Regional Corridor, 2008

Appendix D

MMRP Key Roles in Coordination and Facilitation of Regional Efforts

The MMRP is expected to continue in a regional leadership role upon conclusion of the Middle Mississippi River Regional Corridor Study. It is the MMRP's intention to take the products and outcomes of the collaborative planning effort and maintain the regional momentum generated during the study. As part of that leadership role, the MMRP has laid out some clear paths for future efforts to include the following.

Develop Project Plans for Addressing Resource Issues/Concerns

The Partnership agencies and organizations will focus their programs and activities to address the goals and objectives in the MMR Regional Plan and will strive to develop joint project plans in priority areas of the corridor. Agency/organization initiatives will be coordinated to make best use of the appropriate program and funding options to meet the landowner and resource objectives. The MMRP Steering Committee will take the lead in providing the forum and opportunity for development of joint plans on an ongoing basis.

Establish Committees within the Partnership

The Steering Committee will develop a Partnership Committee structure that will facilitate the planning and implementation of joint projects among the MMRP partners and regional stakeholders, will strive to include appropriate programs in each project plan, and will encourage appropriate public input into each project as needed. A committee structure will be developed that matches the resource issues and concerns of the Regional Plan and includes appropriate membership from within and outside the Partnership.

Delegate Champions

The MMRP Steering Committee will encourage the designation of Champions for the various resource issues, objectives, or specific project plans. The role of the Champion will be to provide overall leadership for the issue or project and coordinate the activities of the other Partners and regional stakeholders that are involved.

Utilize meetings, teleconferences, news letters, etc.

The Partnership will hold a meeting in January and in the summer of each year to promote the resource needs in the corridor and serve as an information exchange for the Partnership, regional stakeholders and the general public. An annual report will be prepared each January to highlight the accomplishments of the Partnership and stakeholders for the past year and will be distributed to interested audiences and to Illinois and Missouri legislators. Additional news worthy events and items will be distributed by e-mail, etc.

The Steering Committee will hold at least two teleconference annually to conduct business of the Partnership. These will normally be conducted in October and April of each year. In addition the Steering Committee will conduct legislative outreach and tours to help feature the conservation needs and the Partnership and stakeholder accomplishments in the corridor.

Serve as a Clearinghouse for Data

The MMRP will maintain a web site at www.midmiss.org to help with outreach and serve as a site for sharing GIS natural resource information associated with the corridor and specific projects and initiatives. This site will be expanded to host more GIS information as funding and staff are available to create and maintain the data.